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ROYAL COMMISSION

ON

TRANSPORTATION

HEARINGS

HELD AT

OTTAWA

VOLUME No.:

67

DATE:

11 MAY 1960

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| 22 | <u>VOLUME 67</u> | ERRATA |
| 23 | p. 11,847 - 1 26-27 | Reads "pro - rates"; should read "Crow rates". |
| 24 | | |
| 25 | 1 29 | Reads "pro - rates"; should read "Crow rates". |
| 26 | p. 11,848 - 1 4-5 | Reads "milling and transit"; should read "milling in transit". |
| 27 | | |
| 28 | p. 11,848 - 1 18 | Reads "pro-rates"; should read "Crow rates". |
| 29 | 1 21 | Reads "milling and transit"; should read "milling in transit". |
| 30 | | |

1. Dear Sirs: We are very glad to hear from you and hope you are well.

2. I have not yet received your letter of the 10th but will send you a reply as soon as possible.

3. I am sorry to hear that you are not well and hope you will soon be better.

4. I am sure you will find the enclosed of interest and hope you will like it.

5. I am sure you will find the enclosed of interest and hope you will like it.



- 1 p. 11,848 - 1 23 Reads "milling and transit"; should
2 read "milling in transit".
- 3 1 29 Reads "pro-rates"; should read
4 "Crow rates".
- 5 p. 11,849 - 1 5 Reads "milling and transit"; should
6 read "milling in transit".
- 7 1 19 " "
- 8 p. 11,862 - 1 26 Reads "great extent"; should read
9 "greater extent".
- 10 p. 11,873 - 1 5 Reads "costing factors"; should read
11 "constant factors".
- 12 p. 11,877 - 1 25 Reads "economy test"; should read
13 "economic test".
- 14 p. 11,893 - 1. 1,2,3 Reads "superintendant"; should
15 read "superintendence".
- 16 1. 23 " "
- 17 1. 7,8 .16075 should read .16475
- 18 1 21 \$2,158,089 should read \$2,150,089
- 19 1 24 .3586 should read .03586
- 20 1 25 .3288 should read .03288
- 21 p. 11,899 - 1 14 "and hoppers - coal" should read
22 "hoppers and coal".
- 23 p. 11,909 - 1 4 "prairies" should read "Prairie".
- 24 1 8 "primary other" should read "primarily
25 for other".
- 26 1 27 "local traffic" should read "local
27 grain traffic".
- 28 p. 11,912 - 1 8 "Artery" should read "Arborg".
- 29 p. 11,915 - 1 14 "expanse" should read "expense".
- 30 p. 11,916 - 1 15 " "
- 1 23 "grain" should read "train".
- p. 11,921 - 1 1= "which" should read "with".
- 1 22 "Myer" should read "Meyer".
- p. 11,925 1 6 "not" should read "No".
- p. 11,944 - 1 26 "tax on" should read "take".



- 1 p. 11,945 - 1 1 "prairies" should read "Prairie".
- 2 p. 11,946 - 1 16 "us now" should read "connection"
- 3 p. 11,949 - 1 3 "simple" should read "symbol".
- 4 1 12 " "
- 5 p. 11,950 - 1 28 " "
- 6 Duplicate
- 7 p. 11,950 - 1 7 " "
- 8 1 14 " "
- 9 1 16 " "
- 10 p. 11,951 - 1 9 "demerage" should read "demurrage".
- 11 p. 11,952 - 1 19 "simple" should read "symbol".
- 12 p. 11,954 - 1 2 "auditing of" should read "Auditor of"
- 13 1 3 " "
- 14 p. 11,961 - 1 25 "controlled" should read "to total".
- 15 Volume 68
- 16 p. 12,007 - 1 26 "In" should read "I".
- 17 p. 12,010 - 1 22 "pooling" should read "pulling".
- 18 1 24 "plotted" should read "spotted".
- 19 p. 12,018 - 1 19 "to" should read "on".
- 20 p. 12,026 - 1 19 "simple" should read "symbol".
- 21 1 21 " "
- 22 p. 12,029 - 1 28 "plant" should read "point".
- 23 p. 12,078 - 1 17 "a car mile, car day basis to a car mile
- 24 basis" should read "a car mile basis to a car day basis".
- 25 p. 12,081 - 1 23 "does not include" should read "does include"
- 26 p. 12,097 - 1 5 "out-if-pocket" should read "out-of-pocket".
- 27
- 28 p. 12,103 - 1 9 "\$5,000.00" should read "\$50,000.00"
- 29 p. 12,114 - 1 6 "availability" should read "variability".
- 30 p. 12,117 - 1 11 "dervied" should read "derived".



1 p. 12,120 - 1 14 "1958" should read "1959".

2 p. 12, 129 1 2 "lines" should read "line".

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I N D E X

Page No.

STENASON, Walter John

Cross-examination

By Mr. MacKimmie

11835

By Mr. Mauro (cont'd)

11891

By Mr. Dickson

11932

NO EXHIBITS IN THIS VOLUME



ROYAL COMMISSION ON TRANSPORTATION

Proceedings of hearings held
in the Court Room, Board of
Transport Commissioners Offices,
Ottawa, Ontario, on the 11th
day of May, 1960.

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| | |
|----------------------------|----------|
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Ottawa, Ontario,
Wednesday,
May 11, 1960.

---On commencing at 9.30 a.m.

THE CHAIRMAN: Order, please. Mr. MacKimmie?

MR. MacKIMMIE: Thank you, Mr. Chairman.

CROSS-EXAMINATION BY MR. MacKIMMIE:

Q. Mr. Stenason, the questions I have for you will be for a large part devoted to the approach of the basis of the study, and I take it you will forgive my ignorance on some of these matters.

A. I am sure there will be no ignorance evidence.

Q. First, Mr. Stenason, could you tell me, is this the first occasion on which a cost study making use of multiple linear regression was used in Canada?

A. Well, cost studies, I would say, since the late 1930's have made use of regression at one time or another. Now, that was largely simple regression, both in Canada and the United States. In Canada it is to my knowledge the first time that multiple regression has been used. It has, however, been used in the United States in other cost studies in recent years; the Divisions case, for example, comes to my mind.

Q. But I take it, sir, that in so far as Canada is concerned, this is the first study of any nature and importance that has been presented in using multiple linear regression.

A. As far as I know, studies have been presented with simple linear regression.



1
2 Q. Was this study presented at your represen-
3 tations? Was it your idea?

4 A. Well, the study reflected a great many
5 people: Our consultants, myself, people in the Canadian
6 National. It was a team effort pretty well.

7 Q. I rather suspected that, sir. Did you
8 spawn the idea of multiple regression, multiple linear
9 regression? Did you advise that that is what they
10 should do to cost this movement?

11 A. That was a recommendation that I made to
12 our own management. But the idea of cost study as a
13 whole developed with cost consultants with Canadian
14 National and myself.

15 Q. Yesterday I was rather surprised to hear
16 Mr. Mauro say that you are 29 years of age. Since you
17 graduated from school, have you been associated with
18 Canadian Pacific, or did you do any other practical
19 training?

20 A. No, only with Canadian Pacific.

21 Q. I understand you were with them from 1952
22 to 1954 and 1958 to the present?

23 A. Well, the latter part of 1956 to the present.

24 Q. As far as Canadian Pacific is concerned,
25 is this export of grain traffic the only traffic that has
26 been costed by this method of the use of multiple linear
27 regression?

28 A. No. We have gradually been introducing
29 the best procedures that we can into our costing, and
30 other traffic has been costed with the basis of multiple
linear regression during the last year or so, the last



1
2 few months.

3 Q. It isn't quite that long; it is just the
4 last few months?

5 A. Yes.

6 Q. The results, I take it, are not completed
7 yet?

8 A. What do you mean by that?

9 Q. The results of your other studies, are they
10 completed?

11 A. Yes. The Department of Research performs
12 a large number of studies for the Traffic Department,
13 and a great many have been completed.

14 Q. What did you use in multiple linear regression,
15 what traffic did you cost?

16 A. Oh, there are a number of specific studies.

17 Q. Just give me one.

18 A. Well, I believe there is an agreed charge
19 on canned goods. I am not certain.

20 Q. Rather a far cry from export grain volume.

21 A. Multiple linear regression covers about
22 one-third of the costs, and that is particularly true of
23 road maintenance costs, and it develops certain coefficients
24 which can be applied to the basic output units of the
25 category.

26 Q. You have not made use of the technique for
27 passenger traffic or branch line operations?

28 A. I don't know that I understand that question.
29 We have a passenger study under way at the moment. The
30 road maintenance accounts in each will be based or are
based on multiple linear regression.



1
2 Q. Will your passenger study that you are
3 preparing or is under way be done in the same manner as
4 is grain, this study you are presenting to this
5 Commission?

6 A. Well, in so far as use of regression is
7 concerned, yes. There are, of course, different elements
8 in the passenger situation which will be reflected in the
9 study.

10 Q. I believe Mr. Saunders on one occasion
11 was asked that the passenger service be costed the same
12 way as grain. We have been told so far it hasn't been
13 done. Is it intended to do so?

14 A. Many of the procedures which are found in
15 the grain study will be applied to passenger.

16 Q. But not all?

17 A. Not all.

18 Q. The same answer for branch line operations?

19 A. Well, we haven't done extensive branch
20 line studies. We did do certain studies as part of
21 the Crow's Nest grain cost study in which we went and
22 got the actual road maintenance expenses on branch lines
23 as a test of our irreducible minimum level of maintenance
24 expenses.

25 Q. Have you done this in other territories?

26 A. No, that was done in the prairies.

27 Q. Was the study which has been submitted to
28 this Commission prepared for management or for presen-
29 tation here?

30 A. Well, I would say that the study of grain
-- well, this is rather a difficult question to answer.



1
2 We are always in process of improving our costing
3 techniques, and once we have done that we use them for
4 management purposes and for presentation to tribunals
5 or commissions.

6 Q. I don't know that I follow your difficulty
7 in saying it is hard to answer. Was it or was it not?

8 A. Yes, the study was done for presentation
9 to this Commission.

10 Q. And it was started before the Commission
11 was ever appointed. Did you know this Commission was
12 coming along?

13 A. Well, I don't know. We started the
14 study in 1959, March of 1959.

15 Q. The Commission was appointed in May, wasn't
16 it?

17 A. I am not aware of the dates here.

18 MR. SINCLAIR: If it will assist my friend,
19 I asked the Department of Research to start the study,
20 on instructions of the President of the company.

21 MR. MacKIMMIE: I take it Mr. Sinclair differs
22 with you in that it was prepared for management.

23 THE CHAIRMAN: You anticipated it.

24 MR. SINCLAIR: No, for the Commission that we
25 expected to be appointed. After listening to certain
26 remarks passed in a certain proceeding which was held
27 in another place, I was convinced that we would soon be
28 given the opportunity of presenting this long-standing
29 inequity to the Canadian Pacific and the Canadian
30 National.

MR. MacKIMMIE: Q. All right, Mr. Stenason.



1
2 When you decided to send out field teams with their
3 little chits of papers and all the little records they
4 were making, did it occur to you that it may be enlighten-
5 ing to have passenger deficits and branch line deficits
6 put on the records?

7 A. We were not doing a study of passenger
8 deficits; we did a study on grain.

9 Q. You were interested in exposing the
10 grain?

11 A. The Department of Research works on assign-
12 ments.

13 Q. On instructions just as I do from my
14 clients.

15 A. We are given an assignment to do a job.

16 Q. And you do as you are told. All right,
17 sir. Would it have been difficult or much more difficult
18 at the time you were preparing this study to cost the
19 export grain to do likewise for other deficit operations?
20 Could you have done it?

21 A. You can do anything if you have enough
22 people.

23 Q. I heard you say yesterday you could do a
24 lot with figures. I think probably you have, but it
25 isn't too responsive. Would it have been much harder
26 to come and give the complete picture rather than pick
27 out one segment of the operation?

28 A. Well, it would have involved a good deal
29 more work.

30 Q. You could have used averages in the use
of regressions?



1
2 A. That covers only the regression part of the
3 analysis. The most time-consuming matters in costing
4 is to get at the basic units of transportation, car
5 movement.

6 Q. Did you know the gentleman that was
7 directing the studies for Canadian Pacific? Did you
8 select these field teams who prepared the charts and
9 pieces of paper they marked their findings on?

10 A. Again the study was planned in conjun-
11 ction with our consultants and various people in our
12 company.

13 Q. Were you in charge directly for the
14 C. P. R.?

15 A. Yes.

16 Q. That is all I want. When you set up
17 this machinery and the selection of the teams, were they
18 made up largely of Canadian Pacific employees?

19 A. You mean the field teams?

20 Q. Yes.

21 A. Yes.

22 Q. And if I understand this study,
23 Mr. Stenason, it looks to me that it is, in fact, a study
24 of allocation of cost and not the most efficient cost
25 analysis to be made. Didn't you just take the total
26 dollars and then apportion them to different things in
27 the system?

28 A. No. We tried to measure the variability
29 of expenses in each account, we tried to get the output
30 units, and we got the output units for grain which was
associated with the expenses in each account.



1
2 Q. I am saying you didn't ask these people to
3 see if this money should be spent this way or the most
4 efficient way to spend the money; you took the total
5 dollars and by different methods you allocated it?

6 A. We costed the operation as it occurred.

7 Q. You either accepted or ascertained the
8 total expenses of the system and simply divided it down.

9 A. We determined the operations which were
10 required as a result of the movement of grain and grain
11 products at statutory and related rates and then developed
12 the cost of those operations.

13 Q. Well, Mr. Saunders tells me the word
14 "required" is the trigger word. Did you actually look
15 to see whether it was required, all the plant and the
16 equipment, or did you just take the sum total and divide
17 it? Were you looking for efficiency in the railways or
18 were you looking for an allocation of cost.

19 A. We were developing the costs of the opera-
20 tion as it was performed.

21 Q. All right. And I suppose -- far be it from
22 me to throw down the challenge -- I suppose if there were
23 inefficiencies in the plant you could hardly expect a
24 team from the C. P. R. to tell you that.

25 A. I beg your pardon?

26 Q. You wouldn't expect them to tell you about
27 it?

28 A. Well, I have a very high regard for the
29 efficiency of Canadian Pacific and all of its operations.

30 Q. But the question is: Would you have
expected those field teams to come back and say:



1
2 "Mr. Stenason, it is costing a lot of money in certain
3 operations, but we don't have to spend that much; we
4 could change this, that and the other thing."

5 A. No. We were costing the movement of
6 the study traffic.

7 Q. And you were not even asking them to
8 reveal information at that time. There was no question
9 here to that effect, was there?

10 A. Well, I don't think I can repeat what I
11 was saying. We have been costing the traffic.

12 Q. Was there a questionnaire sent out as
13 to efficiency as well as cost?

14 A. There was no questionnaire having to do
15 with efficiency.

16 Q. Now, in your text, as I understood it,
17 you were telling this Commission that basically there is
18 no difference in costing traffic such as this as in any
19 other activity producing profits. Is that a fair way
20 to put it?

21 A. Yes.

22 Q. I can quite follow you, sir, if that
23 statement is restricted to what I have been calling an
24 allocation of cost study. But let's see about what I
25 call the most efficient or lowest cost study. Isn't a
26 railway, whose revenue is held down, so it is alleged,
27 by statutory rates and agreed charges and competitive
28 charges, and so on -- in that kind of a study railways
29 are in a very different position than any other manu-
30 facturer.

MR. SINCLAIR: I don't know that I understood



1
2 my friend in saying "held down by --

3 MR. FRAWLEY: I didn't hear what Mr. Sinclair
4 said.

5 MR. SINCLAIR: I didn't hear my friend. He
6 dropped his voice.

7 MR. MacKIMMIE: Q. What I was trying to
8 explain, Mr. Stenason, is that I can appreciate very
9 well your drawing a similarity when you are talking about
10 an allocation of cost, if you are just dividing costs
11 among different products. But a railway company, whose
12 revenues are controlled by statutory rates and agreed
13 charges and competitive rates, and so on, -- I suggest to
14 you that in a true efficient cost study there is not
15 the same comparison between a railway and other business.

16 A. I would say that in so far as statutory
17 rates are concerned, there is certainly no comparison
18 between an ordinary commercial undertaking and a railway.
19 In so far as agreed charges and competitive rates are
20 concerned, I would suggest it is part of normal commercial
21 pricing.

22 Q. Well, we are angels here, Mr. Stenason.
23 What is the great burden of statutory rates compared to
24 a ceiling put on for other economic reasons? You put
25 it yesterday, you said management had control over
26 passenger service. What good can it do?

27 A. It can attempt to put it in a profitable
28 position, not only through rate action but through
29 output action.

30 Q. Just a minute. You say management can
take action to put passenger in a profitable position?



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A. Or in a break-even position; it is free to do that.

Q. What have they been doing in the last number of years.

A. There has been a good deal of adjustment in passenger service.

Q. Making money on it?

A. There is a deficit on passenger service.

Q. Well, are you still hopeful that you can? Are you not trying to start making money on passenger trains?

A. Well, I am not the management, Mr. MacKimmie. There are parts of the passenger business which can be profitable.



1
2 Q. But my problem is that I can do nothing
3 about the structure of the rates because the Government
4 has fixed them. I say you can do no more with
5 passenger lines because economics fix them; you can
6 do no more with competitive agreed charges because
7 other competition fixes them, and it makes no difference...
8

9 A. Well, I think it is different.

10 Q. Mr. Mauro talked to you yesterday about
11 your station charges, and I think I noted you properly
12 that you say a railway station may be used for three
13 purposes -- carload freight, less than carload freight,
14 passenger service, and you say a technique is used to
15 develop the variable cost of each of the three station
16 services. Do I take it that export grain moving in
17 carload lots is one of the services? Do you show your
18 full car service?

19 A. Yes, it is carload service.

20 Q. I am a little naive to recognise things.
21 What good is the station to the grain farmer?

22 A. I beg your pardon.

23 Q. What good is the station to the grain
24 farmer?

25 A. It is required to move his product.

26 Q. I am sucked in, too. Tell me, why does
27 he need it to move his product?

28 A. Because his product has to be billed;
29 he requires an agent.

30 Q. In all the stations across Canada?



1
2 A. That required a facility.

3 Q. In view of that, across the prairies
4 we need to have a bill as the thing whistles through?

5 A. This is an origination charge.

6 COMMISSIONER MANN: You could probably
7 have floating agents at certain stations if the traffic
8 is full carload traffic?

9 THE WITNESS: Yes, I believe this is
10 done. There have been agents replaced in recent years,
11 and the billing in that case is done at another station
12 which remains on the line.

13 MR. MacKIMMIE: Thank you.

14 Q. How do you do the billing in stations
15 where there are no agents? --

16 MR. SINCLAIR: He has just answered
17 that question to the Commission.

18 MR. MacKIMMIE: I am sorry, I didn't
19 quite get the answer.

20 THE WITNESS: The billing is done at
21 another station on the line.

22 Q. But I pay the charges on all this full
23 allocation of the station charges?

24 A. You pay -- or, at least, it is reflected
25 in the cost study of the variable cost of station
26 expenses.

27 Q. Now, Mr. Stenason, I speak of "pro-
28 rates" which is a term I use when talking about the
29 statutory rates. Since the study is concerned with
30 pro-rates should not the cost to revenue be confined



1
2 only to those services covered by the rate, in your
3 opinion?

4 A. The only exception to that is the
5 milling and transit charge; and insofar as the milling
6 and transit charge is concerned it is very difficult
7 to distinguish this -- to distinguish the services
8 performed, which the tariff has to cover, from the
9 movement of grain and grain products. That is not
10 true for out-of-line haul and divisions where the
11 revenue is at the domestic grain rate level and has
12 to do with really something distinct from statutory
13 and related grain.

14 Q. But I am looking at the basis of the
15 study and I am putting this principle to you. I am
16 not interested in your difficulties, but I am suggesting
17 this so far as the study is concerned. With these
18 pro-rates -- you talked about transit and other special
19 services...

20 MR. SINCLAIR: What other special services?
21 That would assist the witness.

22 MR. MacKIMMIE: The milling and transit --
23 whatever he calls them.

24 THE WITNESS: Yes; milling and transit,
25 I believe, is the only other service.

26 Q. But I am suggesting to you that those
27 services might well be -- they are not compensatory --
28 the subject of the application of something -- but
29 that they ideally shouldn't be included -- that the
30 cost should only include what the pro-rates cover, as



1
2 a matter of principle.

3 A. I think, ideally, that we could be
4 certain as to what is intended by the tariff. That
5 is the problem; it is a very real problem to split
6 whatever work is done by milling and transit from the
7 total movement.

8 Q. Thank you, Mr. Stenason; that is what
9 I am after. I am not very deep; I am just trying to
10 establish some of the principles.

11 Now, how much would the fully-distributed
12 costs be reduced -- would you know, but I gather from
13 your last answer you wouldn't know -- by excluding
14 such items?

15 A. The fully distributed cost?

16 Q. Yes?

17 A. How much?

18 Q. How much would the fully distributed
19 cost be reduced by excluding such items as these?

20 A. Excluding milling and transit?

21 Q. Yes?

22 A. Well, we did make an attempt, as you
23 will have gathered from Mr. Mauro's cross-examination,
24 to estimate the services that were involved under
25 this tariff. Now, the bulk of the services are
26 switching and the variable costs which we developed
27 would, for these services, be almost equivalent to
28 full cost; this is because switching is completely
29 variable with traffic volume.

30 Q. It has just been whispered to me "Don't



1
2 let him get away on distribution costs." Because of
3 that I am asking "How much would the full distributed
4 costs be reduced...

5 MR. SINCLAIR: I do think that he should
6 allow the witness to complete his answer. I know
7 it is difficult for counsel who has advisors on each
8 side of him and in front of him and behind him to
9 look at the witness. He hadn't finished his answer.

10 I would suggest that if Mr. Mauro wishes
11 to suggest a question or wishes to take part in the
12 matter he should stand up.

13 MR. FRAWLEY: Now we are getting etiquette
14 from Mr. Sinclair, and I, personally, am not going
15 to have it.

16 THE CHAIRMAN: I don't think Mr. MacKimmie
17 needs instructions.

18 MR. SINCLAIR: I didn't intend to give
19 him instructions. I would like the witness to be
20 allowed to complete his answer, Mr. Chairman.

21 THE CHAIRMAN: Yes, certainly, the
22 witness will have to complete his answer.

23 MR. MacKIMMIE: Mr. Stenason, you start
24 talking and tell me when you are through.

25 MR. SINCLAIR: With respect, I think
26 that is a very unfortunate remark from counsel, because
27 the witness has indicated that he is trying to be of
28 assistance, and I think that he should be allowed to
29 give that assistance to the Commission and to counsel.

30 MR. MacKIMMIE: I apologise for my rude



1
2 remarks to my learned friend, Mr. Sinclair, and to Mr.
3 Stenason.

4 THE CHAIRMAN: Well, let us get on with
5 the cross-examination.

6 MR. MacKIMMIE: Mr. Stenason, you answer
7 whatever you want and plead it as much as you like and
8 tell me when you are through.

9 THE WITNESS: I think I had already
10 answered the question.

11 MR. MacKIMMIE: I thought so.

12 Q. Now, I am going back to the same question
13 to see if you can give me -- and you might be able to --
14 a more concrete answer. Will you tell me how much
15 the fully distributed costs would be reduced by ex-
16 cluding all such items -- that is, the fully-distributed
17 costs?

18 A. No, I don't think I can say anything
19 more than I have already said.

20 Q. Thank you. The revenues, however,
21 from those services would be fairly small if they were
22 excluded from that side...

23 A. Yes; we have provided the information to
24 your consultants that are involved.

25 Q. Now, my clients, Mr. Stenason, made their
26 position clear at other hearings, and you might do
27 it also. We are interested in some questions of
28 national policy. One of them that we talked about
29 is mountains. Could you tell me how much of the
30 total grain costs represent the extra burden going



1
2 over the mountains? Could you tell me if it would
3 be substantial?

4 A. Well, I think the only items involved
5 would be fuel and crew wages. They are higher because
6 of the lighter trains which have to be operated through
7 the mountains.

8 Q. But would you agree that the cost per
9 ton mile would be greater?

10 A. I think the cost would be somewhat
11 greater and would be substantially greater.

12 Q. Now, dealing with the branch lines,
13 Mr. Stenason, perhaps you might be able to help me
14 here. Again I am back to questions of national
15 policy and not necessarily costs; and these references,
16 if you can follow me, really are related more to branch
17 lines than to grain. But how much of the total
18 grain cost -- and by that I mean full cost -- represents
19 cost of service -- and in "cost of service" I include
20 maintenance of the track and equipment as well as the
21 running expenses -- how much of the grain cost is
22 represented by cost of service on branch lines? Is
23 it a good portion of it?

24 A. Well, I haven't worked it out. The
25 bulk of the movement of the grain is on the main line
26 so that the variable output costs for branch line
27 operations would not be extensive.

28 Q. Would not be extensive?

29 A. Well, we are talking in the aggregate -
30 in terms of total cost.



1
2 Q. The total cost. I want total cost,
3 not just the variable?

4 A. Yes. Insofar as the fuel and crew
5 wages are concerned there would be higher unit cost
6 on branch lines than on main lines; but, again, there
7 is not nearly as much volume involved in branch lines
8 as there is on main lines. It is not an easy
9 question to attempt to resolve.

10 Q. I am not asking you for any detail on
11 it. I would just like to know if in total costs that
12 cost of service would be a substantial amount. All
13 I need is an adjective, not a figure?

14 A. I would say it would be significant.

15 Q. How much total cost is incurred, would
16 you know, on solely related branches?

17 A. There are here, of course, the solely
18 related costs themselves, which are approximately 6
19 million dollars. That is the track investment and
20 maintenance appreciation cost. But, again, the
21 volume on the branch lines is not nearly so extensive
22 as the volume on the main lines.

23 Q. Do you think that the cost per revenue
24 ton mile on these branches is significantly different
25 from what it is on other lines of equal density?
26 Again we are talking about full costs?

27 A. What lines are you talking about?

28 Q. Branches; do you think the cost per
29 revenue ton mile of these branches is significantly
30 different from some other lines of equal density --



1
2 other branch lines.

3 A. I wouldn't think so, if we are putting
4 in both sides of this equation the same cost items.

5 Q. Mr. Stenason, am I right that your
6 study as to operating expenses -- I think we have
7 been through a bit of this before -- measure the
8 amount spent without regard to whether the expense
9 was necessary or desirable or higher than it might be
10 under an alternate plan?

11 A. Again, we took the operation as it
12 occurred.

13 Q. So I am right?

14 A. No, I wouldn't say you were right.

15 Q. Well, listen to me again. Am I
16 right that your study as to operating expenses measures
17 the amount spent without regard to whether the
18 expense was necessary or desirable or higher than it
19 might have been under an alternative plan?

20 A. I would say that it represents the
21 amount spent.

22 Q. So the statement is right?

23 A. Well...

24 MR. SINCLAIR: With respect, Mr. Chairman,
25 he has answered the question twice.

26 MR. MacKIMMIE: I would like to under-
27 stand the witnesses's answer.

28 Q. Is the statement right or not? --

29 MR. SINCLAIR: I take it my objection is
30 not given effect to. I would like to have it on



1
2 the record...

3 MR. MacKIMMIE: What is the basis of
4 your objection?

5 MR. SINCLAIR: That the witness has
6 answered the question twice.

7 MR. MacKIMMIE: But I don't understand the
8 answer. Surely, Mr. Sinclair, you have been at the bar
9 long enough to know that I can find out...

10 THE CHAIRMAN: Counsel and the witness
11 must understand one another. The witness would like
12 to know what the question is and counsel would like
13 to know what the answer is.

14 THE WITNESS: Well, I think we had this
15 question before and I said before that we took the
16 movement of the traffic as it occurred. This is what
17 is done in a cost study.

18 THE CHAIRMAN: If you don't understand
19 any question, Mr. Stenason, say so and, likewise, Mr.
20 MacKimmie, you can comment on the answer that is
21 given.

22 MR. MacKIMMIE: Q. My question was this:
23 Am I right your study as to operating expenses measures
24 the amount spent without regard to whether the expense
25 was necessary or desirable or higher than it might
26 have been under an alternate plan? --

27 MR. SINCLAIR: I object to that on the
28 basis that it has been answered, and the witness has
29 said what the situation was and he explained how he
30 did the cost study.



1
2 MR. MacKIMMIE: Q. Do you understand the
3 question? --

4 MR. SINCLAIR: I have made my objection,
5 Mr. Chairman and I have stated the grounds.

6 THE CHAIRMAN: As a matter of fact I think
7 Mr. MacKimmie is entitled to a clear answer.

8 THE WITNESS: Well, I will say what I said
9 earlier, that we had done a cost study and we had
10 measured the cost that was involved in the movement
11 of the study traffic, and that it was not a study
12 having to do with efficiency.

13 MR. MacKIMMIE: Q. When you came to
14 the cost of money did you do the same thing, or did
15 you set up a yardstick, or an objective, or...

16 A. No. Evidence was introduced as to what
17 the cost of money was, and the cost of money was
18 treated in a similar fashion to the cost of services,
19 to the cost of labour, the cost of fuel, cost of
20 material.

21 Q. Well, for the cost of money you didn't
22 take the annual earnings of the C.P.R., but you did
23 set a theoretical basis of 10.38 per cent before your
24 return of...

25 MR. SINCLAIR: The evidence is there,
26 and the evidence is that the cost of money was proved
27 as a fact.

28 MR. MacKIMMIE: What is the suggestion
29 now -- don't ask any questions about it?

30 MR. SINCLAIR: I say that I object to



1
2 the question on that basis.

3 MR. MacKIMMIE: Q. The question was,
4 that for the cost of money you didn't take the actual
5 earning of the C.P.R. as you did on the actual expenses,
6 and I am suggesting to you that you used a 10.38 per
7 cent rate. Did you do that?

8 A. No; there is confusion here between
9 cost of money and the rate we used. The cost of
10 money -- that was 10.38 per cent; this was the level
11 which was required in order to get back that cost of
12 money at 6 and a half per cent.

13 Q. All right; what was the actual rate in
14 1958 -- the study year?

15 A. Of Canadian Pacific?

16 Q. Yes? --

17 MR. SINCLAIR: I object to the question
18 as not being relevant.

19 THE CHAIRMAN: Well, Mr. Sinclair, I think
20 the Board requires more information, so if we let Mr.
21 MacKimmie proceed...

22 MR. SINCLAIR: My duty requires me to make
23 these objections, Mr. Chairman. My objection has
24 been stated and I take it it is not to be given effect
25 to.

26 THE CHAIRMAN: I don't think Mr. MacKimmie
27 will ask any frivolous questions.

28 MR. SINCLAIR: I don't say they are
29 frivolous; they are irrelevant.

30 MR. MacKIMMIE: Or somebody is whistling



1
2 by the graveyard.

3 MR. SINCLAIR: I can hear Mr. MacKimmie
4 loud and clear.

5 MR. MacKIMMIE: Q. What was the 1958
6 actual rate of return?

7 A. We are still looking for it.

8 MR. SINCLAIR: On what basis, Mr. Chairman?

9 THE CHAIRMAN: Mr. MacKimmie, on what
10 basis? Do you mean from railway enterprise?

11 MR. MacKIMMIE: The point is very simple.
12 My clients contend that their cut -- the portion that
13 my clients have to pay out there is not, perhaps,
14 under the most efficient system, and that they should
15 use the actual rate. What they are doing is to take
16 it at both ends. They will put up their total cost
17 and apportion it, and then when it comes to a rate
18 they don't stick to that situation then; they set up
19 a 10.38 rate.

20 That is the purpose of the examination,
21 as my friend undoubtedly knows.

22 MR. SINCLAIR: Well, my friend has asked
23 a question on the basis of how it was calculated, and
24 he says it is a simple matter.

25
26 -
(Page 11860 follows)
27
28 -
29
30



1 MR. MacKIMMIE: The same basis as the 10.38 --
2 the net investment.

3 MR. SINCLAIR: What net investment?

4 MR. MacKIMMIE: Rail property.

5 THE CHAIRMAN: Rail enterprise, I understand.

6 MR. SINCLAIR: We will make the calculation
7 and put it on the record.

8 MR. MacKIMMIE: Q. Around 4 per cent;
9 is that reasonable to you?

10 A. I am not that certain about the various
11 implications of rail and so forth. I would just as soon
12 make the calculation.

13 MR. SINCLAIR: If it would help my friend,
14 it is something under 4 per cent.

15 MR. MacKIMMIE: That will be quite satisfactory
16 to me -- something under 4 per cent.

17 MR. STENASON: Yes.

18 MR. MacKIMMIE: Q. So, I will relieve you
19 from that unless, perhaps, it is under 3. Could you
20 tell me this: how much would your full cost for the
21 Crow rates be reduced had you used something under 4
22 per cent as the yard stick for cost of money?

23 A. I don't know.

24 Q. But it would be a substantial figure?

25 A. Yes, it would be.

26 Q. What rate making significance do you
27 attach to the fully distributed cost of something over
28 70 million which appears in the other exhibit yesterday
29 in the calculated deficit of something over 5 million --
30 what rate making significance do you attach to that?



1 A. Well, in the case of a commodity such
2 as grain, which is a very significant portion of the
3 total volume of traffic moving on Canadian Pacific,
4 I would attach very great significance to the full cost.

5 Q. Should the same standard be applied in
6 determining rates on all traffic moving in volume?

7 A. I would say each category of traffic has
8 to be looked at independantly. I would say any
9 category of traffic which made a very significant de-
10 mand upon the plant and which was a very large proportion
11 of the total traffic volume ---

12 Q. I hope you are not going to tell me ---

13 MR. SINCLAIR: Let him finish.

14 A. ---would certainly be a candidate for
15 that sort of treatment.

16 MR. MacKIMMIE: Q. You say it would be
17 of great significance: surely not just grain? There
18 must be other traffic in volume where it would be of
19 equal significance?

20 A. I don't know of any single category
21 of traffic which has the importance in terms of total
22 volume that grain has on Canadian Pacific.

23 Q. Perhaps if I can take it in a smaller
24 area: how about heavy volumes moving in a smaller area,
25 such as sand and gravel?

26 A. No, this would be small in relation to
27 the total volume.

28 Q. With reference to the car days -- and
29 again I am on principle and not necessarily on the
30 dollars spent -- in making your study of car days of



1 moving the grain, did you inquire whether or not less
2 car days would have been used if train service had been
3 more frequent in the grain territory?

4 A. We developed our car days on the basis
5 of the car days of the study traffic. We tested the
6 car days at country origin stations and we found that
7 the average time that the cars were at a country origin
8 station being loaded was 3.3 days per car, which is very
9 similar to the I.C.C. factor of 3.75 days for car days
10 at loading or origination.

11 Q. Do you know the detail that is in that
12 3.75 to which you have just made reference?

13 A. I would have to consult with Dr. Edwards.

14 Q. It includes time in the yard doesn't
15 it?

16 A. That is in addition, I believe.

17 Q. Well, perhaps you had better check with
18 Dr. Edwards.

19 A. Yes, it does; it is a total of four days
20 and includes about two days of the ---

21 Q. Well, my question to you was, did you
22 inquire as to whether less car days would have been
23 used if train service had been more frequent in the grain
24 territory?

25 A. No, I think it would have been a very
26 clear case that more frequent train service would have
27 increased the cost to a great extent than fewer car days
28 would have reduced them.

29 Q. I am sure you are right on that, but that
30 may be the branchness of this Commission's problem.



1 The car days come by virtue of the fact that there are
2 perhaps infrequent trains running up and down branch
3 lines?

4 A. Yes, although the days I mentioned
5 indicated it was not a sizable factor.

6 Q. But I think you will agree with me had
7 there been more total traffic and more frequent train
8 service you would expect less car days per car?

9 A. Somewhat less, yes. I am not convinced
10 as to how much less it would be. You see, Mr. MacKimmie,
11 many of these way operations are set up in this way:
12 a way train will go up the branch line pulling empty
13 cars and spot them at elevator tracks and return the
14 next day and pull the loads. So, it is not always the
15 case of a car sitting on a branch line for a week between
16 train services.

17 Q. With reference to train costs, have you
18 assumed, in effect, that the volume of train service
19 -- and I mean by that, train miles -- on each main line
20 and branch line, other than solely related lines, is
21 proportionate to the volume of grain handled on that
22 line?

23 A. Yes.

24 Q. If grain accounted for 60 per cent of
25 the traffic in a train, you put 60 per cent of the train
26 cost as chargeable to grain?

27 A. Yes, sir.

28 Q. Doesn't this assume that train service
29 is 100 per cent variable with traffic?

30 A. Yes, it does. This was very fully tested.



1 Q. Are not some trains run irrespective of
2 the tonnage offered?

3 A. Would you like me to review the test?

4 Q. Aren't some trains run irrespective of
5 tonnage offered?

6 A. Yes; many way freights are run because
7 of the switching service to be performed.

8 Q. What did you want to do?

9 A. Do you want to go on?

10 Q. No, I have had all I need. If some
11 trains are run irrespective of the tonnage offered, doesn't
12 it mean some train costs are constant although you are
13 treating them as though they were all 100 per cent
14 variable?

15 A. No. My answer was that many trains are
16 run -- this is particularly true of way freight trains --
17 because of the amount of switching to be done and not
18 so much the tonnage on the train. We have examined each
19 of the way trains and also the through train movements
20 on Canadian Pacific to test the variability. For ex-
21 ample, in way freights we stratified all of our way
22 freight operations by frequency of service and determined
23 the number of cars on the train for each class, and the
24 weight of the train, and the fuel and crew wages per
25 train mile. This indicated an extreme degree of adjust-
26 ability of way freights, and in so far as main line
27 operations were concerned, the only element which gives
28 rise to constancy in crew wages on these trains would be
29 the need to perform some so-called minimum level of
30 service. What we did was to take our total gross ton



1 miles by train run, remove the grain gross ton miles to
2 determine the number of trains which would be left on
3 the basis of the average weight of trains and then
4 satisfied ourselves with our traffic department that
5 that number of trains would be sufficient for service
6 purposes.

7 Q. Then, I take it from what you have just
8 told me that if you cut export grain traffic by 10
9 per cent you would automatically cut 10 per cent off the
10 trains, because you have got 100 per cent variable?
11 That is what you are telling the Commission?

12 A. Well, I am telling the Commission --
13 yes, train expenses are treated as being 100 per cent
14 variable. Now, the particular way in which they are
15 developed at 100 per cent variable has to do with the
16 total movement of grain and grain products.

17 Q. But you say to me that if the 10 per cent
18 of the grain traffic was cut you would also cut 10 per
19 cent of the number of trains?

20 A. That is what is indicated from the tests
21 we have done.

22 Q. Do you think you would actually do that,
23 irrespective of what is indicated?

24 A. Well, our traffic department exercise a
25 high degree of flexibility in adjusting trains to the
26 traffic being operated. We examined about 1240 way
27 freight trains and the adjustments which have been made
28 to their schedules over the last three years.

29 Q. All right, thank you. Were you finished?

30 A. Yes, I think so.



1 Q. We could go on, but I think I understand
2 your position. You say the tests indicate you may do it
3 and your traffic people may do it, but the question I
4 asked you was, do you think you would do it?

5 A. Yes.

6 Q. Does your study assume that all switching
7 costs are 100 per cent variable with traffic?

8 A. Yes, sir -- switching time is 100 per
9 cent variable, and the switching cost is 100 per cent
10 variable with the time.

11 Q. And are not some engine hours required
12 simply for stand-by purposes between train arrivals?

13 A. This is an overhead cost in a yard,
14 and you have to look at variability in the terms of
15 the total adjustment pattern of the yard.

16 Q. Is there a substantial amount of
17 idle crew and engine time which must be paid for whether
18 the cars are handled or not?

19 A. There is idle time in yards which arises
20 as part of the normal working of the yard.

21 Q. Doesn't this mean the switching cost
22 cannot be 100 per cent variable with traffic?

23 A. No, sir.

24 Q. Incidentally, how do you explain, or,
25 can you give me any explanation, that in your study for
26 switching -- your study charges an average of only 10.7
27 minutes per car at Fort William and 29 minutes at
28 Vancouver?

29 A. This was checked out in response to a
30 request of one of the consultants. The answer is the



1 large amount of work involved in Vancouver relative to
2 Fort William. The distance involved: the main classi-
3 fication yard is Coquitlam which is some distance
4 away, and there is a considerable operation there to the
5 elevators which are in the water.

6 Q. The plant or equipment or yards at Fort
7 William lend themselves to a more economic operation,
8 I take it, than the plant in Vancouver?

9 A. There is less switching time involved.

10 Q. And that is the reason -- the facilities
11 are better at Fort William, or more accessible?

12 A. They are certainly more accessible to
13 the grain elevators.

14 Q. I am not being critical; I am just trying
15 to find the facts. How do you account for the big range
16 in car days -- as we understand the submissions, the
17 C.N.R. says 24.6 for shipments to the Lakehead, and you
18 say only 15 days to Fort William? I know there are
19 two days repair car time, I believe?

20 A. Yes, the treatment of car days -- you
21 are referring to the previous treatment of car days,
22 are you?

23 Q. Are we? Yes, we are.

24 A. Now, as far as the previous treatment
25 is concerned ---

26 MR. FRAWLEY: Is the witness referring to
27 exhibit 132 when he says "previous" as against existing?

28 MR. STENASON: What is exhibit number 132?

29 MR. FRAWLEY: Those are the changes you filed
30 yesterday.



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Stenason, cr-ex.
(MacKimmie)

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1 MR. STENASON: Yes, that is right.

2 MR. FRAWLEY: Thank you.

3 MR. STENASON: The Canadian Pacific car cycle
4 at that time was based on active car days and the car cycle
5 had removed from it any idle time, and I believe the
6 Canadian National's was based on the total car days in-
7 volved. There is no problem here because the basic unit
8 costs are different for the active than they are for the
9 cycle car days.

10 MR. MacKIMMIE: Q. What is it under the new
11 basis to Fort William, under this study?

12 A. The average time?

13 Q. Yes. How much was added to the 15 days --
14 that is all I think I need to know.

15 A. Fort William, the active car days are
16 17.5, and Vancouver 23.4. Now, to that is added an
17 idle ratio to reflect the days during the year that the
18 car is idle. I haven't worked out the idle ratio separ-
19 ately for the two movements. I can do that if you like.

20 Q. If you would not mind doing that, it
21 would be appreciated. In any event, there is nothing
22 different in the operation of the two railways? I hope
23 it is not a question of efficiency, is it?

24 A. Well, the Canadian National have a large
25 volume of grain traffic going to Prince Rupert and other
26 west coast points. Are you talking about all Pacific
27 coast traffic?

28 Q. What is putting the ideas in my mind
29 is that you say it is 23.4 days to Vancouver, and the
30 Canadian National 39.8. I am just having a little



1 difficulty with that.

2 A. I think the two figures reflect different
3 things. The C.N.'s as I understand it, is based on the
4 total car days involved in the cycle, including idle
5 time; and ours is based on the active car days with the
6 idle time excluded.

7 Q. But you are going to supply the ratios?

8 A. Yes.

9 Q. Now, Mr. Stenason, basically, as I
10 understand it -- and I am reading this because I don't
11 understand it -- you made a statistical analysis of
12 certain expense accounts based on division records.
13 The division data did not add to the system total; there-
14 fore, you made all your regression studies on the division
15 level and then adjusted your answers by fixing percentages
16 so as to come out with your system totals: am I right?

17 A. Yes, that was in order to include any
18 expenses which are put into the accounts at, actually,
19 a number of levels. The old district level on Canadian
20 Pacific, the regional level and the system level.

21 Q. Doesn't your method assume that the
22 general expenses incurred at the system level may behave
23 in exactly the same way as those incurred on the scene
24 at the division level?

25 A. That assumption is invalid. The only
26 accounts in which the difference between the system
27 expenses and the division expenses is of significance
28 are in the so-called overhead accounts -- overhead and
29 track maintenance, equipment maintenance and transporta-
30 tion. The bulk of the expenses here are supervisory



1 expenses, and the assumption as to whether these were as
2 variable for the system as they were at the division
3 level was discussed with the operating officers in these
4 departments. Generally, the story is that at a division you
5 require an engineer; you can't have half of an engineer
6 or quarter of an engineer. But, when you get up to the
7 regional level or the system level you get the opportunity
8 for divisibility in the supervisory officers.

9 Q. Have you tested the results by including
10 the system expenses first and then making the regression
11 analysis?

12 A. I don't understand.

13 Q. You are not alone.

14 A. You mean prorating the system?

15 MR. SINCLAIR: Then, I take it that is all
16 right -- if they are not alone.

17 THE CHAIRMAN: Well, we will take a recess now.

18

19 ---Short recess.

20

21

22 (Page 11872 follows)

23

24

25

26

27

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30



1
2 THE CHAIRMAN: Yes, Mr. MacKimmie?

3 MR. MacKIMMIE: Q. Just to see if I can get
4 it, I will again repeat the question neither you nor I
5 understood. I asked you if you had tested the results
6 by including the system expenses first and then making
7 a regression analysis. In other words, assume that
8 the indirect items were ten per cent of the direct
9 items, you could have added ten per cent to the direct
10 expenses for each division and then made your calculation
11 of regression. This would give some test of whether
12 the variable cost you used could properly be increased
13 ten per cent.

14 A. I don't think it would be a valid test,
15 because what we are attempting to measure in the regression
16 is the reaction of the expenses which were actually in-
17 curred to the output you had.

18 Q. If you got the same variable either way
19 you could feel reassured about your theory? Is that
20 statement true?

21 A. No.

22 Q. Now, what tests were made to the degree
23 in which these indirect items do, in fact, vary?

24 A. This was based on discussion with
25 operating officers and examination of the component
26 of the expense, that is the functions which are represen-
27 ted by the expense.

28 Q. They are not tests?

29 A. I would say they are tests.

30 Q. That is what you call them.

A. It is one form of a test.



1
2 Q. With reference to regression in general,
3 you found certain relationships which explained the
4 behaviour of railway expense in terms of railway costs,
5 and you then applied variable cost to the grain traffic.
6 What did you do with the costing factors?

7 A. Originally the constant regression
8 equation, which is computed on the actual value of the con-
9 stants of the division, was expanded as a measure of the
10 system constant expenses. As I explained yesterday,
11 when I was going over these, this tended to
12 underestimate the total expenses as a result of having
13 excluded the terminal divisions in a number of accounts.

14 Q. What about negative constants? What did
15 you do with power plant depreciation, and so on?

16 A. The output coefficient computed before the
17 constant was determined was used in the study. It
18 would have been -- one could make a case for having
19 included the output of the coefficient itself.

20 Q. Have you reduced your constant costs by
21 these amounts, these negatives?

22 A. The total constant costs of the system
23 have been reduced by these negatives, yes.

24 Q. In connection with yard costs, would
25 you agree with a thought that high density line can make
26 much more efficient utilization of the yard engine
27 crews and have less unutilized yard crew time?

28 A. Well, yards are located where there is
29 high density for the most part. The bulk of that work
30 is done by road crews, road engines.

Q. All I want to know is if you agree that



1
2 a high density line can make a much more efficient
3 utilization?

4 A. No, I wouldn't agree with that. With
5 density comes congestion, and with congestion may come
6 idle time.

7 Q. Have you got your book handy, the one
8 Mr. Mauro was referring to yesterday, page 311?

9 A. Yes.

10 Q. Well, at page 311, bearing in mind the
11 introductory words are not too helpful to me, it says:

12 "Hazarding a guess, this is probably due to the
13 fact that the Pennsylvania and New York Central,
14 being high-density roads, are able to make much
15 more efficient utilization of yard engine crews;
16 in other words, with higher density and larger
17 yards there is a less chance of having unutilized
18 yard-crew time."

19 What about that statement compared to the
20 question I asked?

21 A. Well, I was certainly involved in this
22 part of the book.

23 Q. You don't want to adopt that statement,
24 I take it?

25 A. We were discussing the general context
26 of the exclusion of the Pennsylvania and New York Central
27 to certain tests which had been made on the cost behaviour
28 of these two roads, and this was taken as part of the
29 explanation for the cost behaviour in yard expenses.
30 But at the time it was written, as I recall, it was not
intended to be a complete explanation. This was one



1
2 reason. But I would not agree with that statement today
3 as a result of yard studies we have done and the work
4 I have done in Canadian Pacific.

5 Q. You wouldn't agree with what somebody
6 wrote?

7 A. As I say, the situation is different in
8 terms of the context.

9 Q. What may be true in principle for New
10 York Central may not be true for Canadian Pacific?

11 A. Well, yes. As I say, this was just an
12 explanation.

13 COMMISSIONER MANN: You made the rather flat
14 statement that with density comes congestion, and with
15 congestion comes idle time. Is that a sort of absolute
16 statement, or is there such a thing as optimum density?

17 A. That was not intended to be a flat
18 statement; it was intended to be more a statement on
19 factors or tendency. I have made no studies as to the
20 optimum utilization of yards. Each yard is different.

21 MR. MacKIMMIE: Q. Do not your general
22 studies and experience suggest there is a constant cost
23 in yard studies which you have not allowed for by your
24 treatment in yard costs as 100 per cent variable?

25 A. No, I know of nothing in my experience
26 or studies which would indicate that.

27 Q. I wonder if you would look at your book
28 again, your joint effort. Reading from a text which is
29 on page 315, my question is this: Referring to page 315,
30 the preparation which you made, especially as to
statistical matters, would you agree there is a substantial



1
2 amount of constant which includes -- I will read it --
3 "...stand-by engineers and a sort of threshold
4 output of engine hours that must be obtained before
5 reaching the level of operations at which the
6 linear regression function provides a reasonably
7 good fit to the historical data."

8 A. I just want to go back to the regression
9 equation which is treated here.

10 Q. All I am looking for is -- all I say is
11 the basic principle must be more idle time than it
12 would for more track.

13 A. No, I think that is not a correct use of
14 the concept of variability. But I am back at the equation.
15 When this was run in the United States, a constant was
16 indicated in the regression equation, and there is a
17 very tiny constant indicated in the regression equation
18 which was run in the Canadian Pacific, and therefore
19 what comes before that statement from which the explan-
20 ation of the constant followed is not the case as a
21 result of tests which we performed on Canadian Pacific.

22 Q. Neither would you agree with me that a
23 given yard used to 50 per cent of the capacity of the
24 engine service could handle more traffic without adding
25 more engine hours.

26 A. No, sir, because the idle time results
27 from such matters as lunchtime and the yard being blocked
28 so that the engine can't get from one point to another,
29 and this doesn't say if I add traffic you are going to
30 be able to use that idle time.

Q. I don't think you use 50 per cent of the



1
2 time for lunch. Can we agree that a given yard used
3 to 50 per cent of the capacity of the engine service
4 could handle more traffic without adding more engine
5 hours?

6 A. I would say that fact was not enough to
7 make the conclusions you have made.

8 Q. You disagree with me, I take it?

9 A. Yes.

10 Q. Now, you disagree with that particular
11 fact, that a yard used to 50 per cent of capacity could
12 handle more traffic without adding engine hours?

13 A. There are so many factors involved here
14 that you can't take one factor and base a conclusion
15 upon it. Each yard is different. There are different
16 reasons for idle time.

17 Q. Lunch?

18 A. The yard being blocked.

19 Q. In analyzing the line which handled grain
20 -- I am talking about solely related lines -- did you
21 make any search of the records to see how much traffic
22 the C. P. R. and management expected to handle when they
23 built branch lines?

24 A. No, sir.

25 Q. You say that you examined to see whether
26 or not that line would have been built or maintained if
27 it was not for the handling of grain. What test did
28 you actually make as to whether it would have been built?

29 A. This was an economy test based on the
30 1958 traffic movement which I referred to yesterday, and,
of course, I was discussing there more the general rationale



1
2 behind the building of branch lines on Canadian Pacific.

3 Q. On page 20 you say -- that is C. P. 7,
4 the memorandum in respect to the cost study, page 20.

5 A. Yes, I have it before me.

6 Q. "Every branch line operated by Canadian
7 Pacific in the prairie region was examined to
8 determine whether or not that line would have been
9 built."

10 Now, that is not 1958, is it?

11 A. Well, that is what was intended here;
12 it was based on the test.

13 Q. Now, sir, I believe on page 22 of that
14 same text you make reference to the fact that you did
15 not assign any constant cost to passenger service because
16 it is incremental, and it is bracketed. What do you
17 mean by saying passenger traffic is incremental?

18 A. It is not the major business carried on
19 by the railway.

20 Q. Is moving steel the major business?

21 A. Freight is the major business of the railway.

22 Q. Car steel or car lumber -- is it the major
23 business of the railway?

24 A. It depends on the commodity, and each
25 movement, its volume in relation to the total; its
26 operation has to be looked at. It is impossible to
27 generalize.

28 Q. Well, does this mean you expect the
29 freight traffic to bear all the constant costs?

30 A. Yes.

Q. If passenger service cannot pay any more,



1
2 you just write off their constant costs?

3 A. Well, it isn't their constant costs.

4 Q. Suppose the government of Canada, in its
5 wisdom, decide that passenger service was very necessary,
6 was essential, in the matter of national policy, and they
7 say: "We are going to subsidize the railway," and they
8 do subsidize it, in calculating that subsidy, would you
9 show any constant costs?

10 A. I don't feel that passenger service should
11 bear constant cost.

12 Q. I see. If you had apportioned some
13 constant costs to passenger service simply because it is
14 there, merely as a test, would you reduce the costs charged
15 to Crow's Nest grain?

16 A. Well, the constant cost is a single amount
17 and any allocation of it to passenger as well as to freight
18 would reduce it, yes.

19 Q. You wouldn't know by how much?

20 A. No, I wouldn't.

21 Q. With reference to the cost of money, how
22 much of full Crow's Nest cost represents the application
23 of the 10.38 per cent, the cost of money, including income
24 tax?

25 A. The total cost of money as recomputed
26 with the revisions on variable cost is \$11,845,000. I
27 do not have readily available the cost of money portion
28 of the constant which is charged to grain. That would
29 have to be developed.

30 Q. Would \$25 million sound all right?

A. I would like to check it. I think it would



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be less than that.

Q. Do you know how much it is for roads, locomotives, freight cars?

A. Well, the items would be -- no, it would be a lot less than that. It is approximately \$16 million. I was just taking 15 per cent of the total investment in the constant.

Q. Now, to finish up, on those corrections we had yesterday in Exhibit 132, are listed number of changes, I take it you don't imply that these were all the criticisms?

A. Well, we had a statement accompanying this on additional points.

Q. And do you say including everthing that was discussed?

A. No, I wouldn't say that.

Q. The biggest change appears on page 7, the amount charged to grain. Now, heads will fall if that suggestion came from some of the grain experts. Who spawned this idea, who was suggesting that you add that amount to grain -- \$2 million?

A. Well, this arose from a number of tests by various people. One such test was that we look at the total constant cost as computed from regression equations, the total variable freight expense and total passenger expense, and see if they add up to the total operating expense of the system. That was a test on the efficacy of the constant from the constant in the regression equation.

Q. My instructions are that this biggest



1
2 change of \$2 million in essence came from you?

3 A. Yes, we made it, but, as I say, there were
4 a number of discussions.

5 Q. Did you advise them of the new procedure
6 prior to this last week?

7 A. On the constant?

8 Q. Everything.

9 A. Yes, when Mr. Saunders was in Montreal the
10 last week I discussed --

11 Q. The question was before then. Did you
12 tell him anything before then?

13 A. I told him over the phone, I think a week
14 or so before he was in Montreal, that there were certain
15 revisions. I don't know that we discussed them in
16 detail.

17 Q. What did you tell him?

18 A. I don't know. We didn't discuss them
19 in detail.

20 Q. Just something like this is a surprise
21 for you when you come to Montreal?

22 A. No, it wasn't intended that way at all.

23 Q. Just two or three more questions. Your
24 studies on variability of operating expenses are based
25 on data. As I understand it, there are 31 divisions,
26 but your studies have been based on only 27 divisions.
27 Now, why is this?

28 A. Well, there are a number of different
29 treatments here.

30 Q. I don't want to take up unnecessary time,
Mr. Stenason, but is that essentially right?



1 A. Parts of it are all right. The road property
2 investment is based on 27. 201 is the overhead on
3 road investment - on road maintenance - and that was
4 based on 27; 22 was based on 21; 27 was based on 27;
5 227 was based on 27 and 231 was based on 31.

6 Q. You did mention investment. If the
7 method is not valid for investment why is it good for
8 three or four more divisions?

9 A. Well, the decision as to whether 31 or
10 27 divisions would be used was based on examination of
11 the data, and, particularly, the extent to which the
12 four terminal divisions tended to fit the distribution
13 of expenses over all. This is a scatter diagram.

14 Q. That is one of the faults of this retro-
15 gression method -that if it doesn't fit you have just
16 to throw it away.

17 A. I beg your pardon?

18 Q. That is one of the faults of this
19 retrogression method. If those four don't fit you have
20 to throw them away and work out what does fit.

21 A. Well, yes; this goes to an examination of
22 the nature of expenses. For example, on station expenses,
23 the nature of station expense in the terminal division
24 was different than in the line haul division.

25 Q. I assume, Mr. Stenason, the working paper,
26 for this exhibit 132 could be made available?

27 A. Yes.

28 MR. MacKIMMIE: Thank you, Mr. Chairman and
29 Mr. Stenason and counsel, and particularly Mr. Mauro,
30 for letting me interrupt so that I can let Mr. Saunders



1 away. Both I and my clients appreciate that.

2 THE CHAIRMAN: Just following up, Mr. Stenason,
3 this exhibit 132. That item on page 7 of exhibit 132 -
4 when did you determine the change?

5 MR. STENASON: It was determined about two or
6 three weeks ago.

7 THE CHAIRMAN: Did you advise the consultants
8 of the change?

9 MR. STENASON: As soon as we saw them we advised
10 them that they were being done; and they still weren't
11 finally complete up to about a week and a half ago.

12 THE CHAIRMAN: Did you advise Dr. Armstrong
13 who, you know, was acting for the Commission?

14 MR. STENASON: I advised him that there were
15 changes.

16 THE CHAIRMAN: But did you advise him of the
17 nature of the changes?

18 MR. STENASON: No, I did not until last week,
19 because I wanted to get them all completed.

20 THE CHAIRMAN: When did you advise Mr. Banks?

21 MR. STENASON: In Montreal, about a week before
22 last - again, that there were changes.

23 THE CHAIRMAN: Well, I mean, he was there, and
24 you allowed him to figure on the figures that were filed
25 by you; but did you advise him of these changes?

26 MR. STENASON: No; they were not completed
27 at that time.

28 THE CHAIRMAN: So that he did not have the
29 changes when he was there?

30 MR. STENASON: No, he did not.



1 THE CHAIRMAN: And when did he get them?

2 When did you give them to him?

3 MR. STENASON: They were released....

4 MR. SINCLAIR: I released them.

5 THE CHAIRMAN: When?

6 MR. SINCLAIR: I forget the exact day. It was
7 Tuesday, I think - a week ago Tuesday; I think that is
8 right.

9 MR. MAURO: The day of the truckers' cross-
10 examination.

11 MR. SINCLAIR: I released them to counsel,
12 and, not only that, I air mailed copies out to the
13 consultants.

14 THE CHAIRMAN: Mr. Stenason, are we to under-
15 stand that exhibit 132 includes changes that were made
16 from time to time as you discovered them?

17 MR. STENASON: Yes.

18 THE CHAIRMAN: And some of them will go back
19 to last January?

20 MR. STENASON: Yes; as a matter of fact, the
21 most significant change on the variable costs was in fr-
22 eight car repairs, and this really arose from tests
23 which resulted from a meeting we had in Montreal in
24 November, and there was a very large scale sample involved.

25 THE CHAIRMAN: Wouldn't it have been fair to
26 have advised the other consultants at that time of
27 that change?

28 MR. SINCLAIR: I will take responsibility for
29 that.

30 THE CHAIRMAN: I shall ask you, then Mr. Sinclair



1 Wouldn't it have been fair to have advised the other
2 consultants at that time of that change?

3 MR. SINCLAIR: I think what I said was that
4 I was going to make some changes, and I told
5 Mr. Stenason that I would introduce them to the
6 Commission. We did advise them that we were considering
7 the changes and were making them.

8 If there is any criticism it should be directed
9 towards me and not to the witness.

10 THE CHAIRMAN: Of course, I am concerned with
11 the Commission and not with the C.P.R. or with Mr.
12 Stenason; and these were not released until last week?

13 MR. SINCLAIR: Well, Mr. Chairman, we have
14 had these people sitting with us week on week - sometimes
15 we met for four days - and we have been discussing with
16 them various changes.

17 As a matter of fact, on switching studies
18 Mr. Stenason sent the studies to these people to look
19 at all the work papers, to put on the charges. The
20 consultant of Mr. Mauro and Mr. Frawley was given full
21 opportunity to look through the working papers before
22 the changes when he was in Montreal.

23 THE CHAIRMAN: But does this represent a chang-
24 ing of the rules in the middle of the game, Mr. Sinclair?

25 MR. SINCLAIR: No, sir; and I do want to make
26 it clear that the switching studies - the additional
27 switching studies that were suggested - the working
28 papers behind them were available and were gone through
29 with those experts.

30 THE CHAIRMAN: Was Mr. Banks allowed to figure



1 on the old figures without the new figures being available
2 when you had them?

3 MR. SINCLAIR: Was he allowed to figure on
4 the old figures when we had the new figures when they
5 were available?

6 THE CHAIRMAN: Yes; and Mr. Stenason says some
7 of these figures were available from last January.

8 MR. SINCLAIR: Yes.

9 THE CHAIRMAN: And Mr. Banks and Mr. Saunders
10 saw all of what the changes were?

11 MR. SINCLAIR: For instance, the \$48,000 in
12 revenue that is on page 2 of exhibit 132 - I think
13 that was suggested by Mr. Saunders.

14 MR. STENASON: Mr. Banks.

15 MR. SINCLAIR: I think we told Mr. Saunders
16 that we were making the check and making this change.
17 The actual amount of it may not have been communicated
18 to him, but we did tell him the change would be made.

19 I wouldn't attempt to say in retrospect where
20 the thoughts on the changes originated.

21 THE CHAIRMAN: Well, I mention this with
22 reference to the statement made by Mr. Stenason.

23 Now, the change on page 7 with reference to
24 constant cost statement 411 of \$2,316,920.00 - that is
25 a very material change.

26 MR. SINCLAIR: Well, Mr. Chairman, I think
27 that basically the thought of approaching this by
28 macro tests originated in one of the Commission staff
29 who, I think, is in this room. I think the suggestion
30 of using the macro test on this thing originated with



1 him; and this is really what this is.

2 THE CHAIRMAN: My only point is that the
3 consultants were left in the dark on actual changes
4 until last week.

5 MR. SINCLAIR: In their full, complete detail,
6 in some respects, yes.

7 THE CHAIRMAN: Why should that be?

8 MR. FRAWLEY: I want to correct a statement
9 made a moment ago that these statements were released
10 on the second day of the truckers' examination. Mr.
11 Banks was not given that statement at any time until
12 two days ago - Monday of this week. Mr. Banks is
13 engaged, as the C.P.R. has been engaged, in a substantive
14 cost analysis of his own.

15 Now, Mr. Sinclair released them to Mr. Mauro
16 and myself. We are now in the position that this man
17 Banks, who was in constant communication with Mr. Stenason,
18 was not given any papers at all. Now, here is exhibit
19 132, in which Mr. Stenason is adding 2 million dollars
20 to grain. Mr. Banks is an analyst doing cost work
21 for us. He was ignored; and Mr. Sinclair handed us
22 this copy, as counsel, on the second day of the truckers'
23 hearing, which I simply took to be an exhibit, or some
24 corrections. Never for a moment did I understand the
25 significance of it, or did anyone, until Mr. Banks came
26 here on Monday. Mr. Banks wasn't sent this information
27 by Mr. Stenason, and he finds it on Monday of this week.
28 Mr. Banks was ignored. Mr. Mauro and I were handed this
29 document which was going to be put in.

30 I want this to bear on the Commission as an



1 indication so far as showing the co-operation which
2 we get.

3 MR. MAURO: On that point, I would like to
4 say that we, at the invitation of the Commission and
5 C.P.R. sent our people up to Montreal. They were there
6 for four days, and I can speak with some personal know-
7 ledge of what went on. During that very time when these
8 figures were available - during the very time when these
9 figures were within their possession - Mr. Stenason and
10 the C.P.R. permitted our consultants to use the older
11 figures. I asked for the particular one on the allocated
12 system day and days allocatable to grain - the
13 working papers - that now appear to be changed. There
14 is a principle involved here. We think it is an im-
15 portant principle. We could have had that material in
16 time.

17 THE CHAIRMAN: Will you go on with the
18 examination Mr. Mauro?

19 COMMISSIONER GOBEIL: Before you start, you
20 asked a question, Mr. MacKimmie, to the witness on
21 how much higher would be the cost for the grain moving
22 to the west, I believe - how much the cost will be
23 higher for grain moving westward, and I think the witness
24 said that it would be not much more except for fuel?

25 MR. MacKINNIE: I believe, on that reference,
26 that I introduced the question by saying that my clients
27 were interested not just solely in the grain question
28 but on things that might develop in national policy,
29 and I was asking the witness would it cost more to take
30 grain over the mountains than the prairies. The witness's



1 answer was, as I recall it - and I am sure you will
2 correct me if I am wrong - that there would be some more;
3 there would be more fuel and services.

4 Is that right, Mr. Stenason?

5 THE WITNESS: Yes; because the trains, for
6 operating through the mountain, would be lighter as a
7 result of the grades.

8 MR. MacKIMMIE: In my substantive summation
9 we may have some more of our views and figures on that
10 particular matter; but that was the purpose of the
11 question.

12 CROSS-EXAMINATION BY MR. MAURO (CONTINUED)

13 Q. Just to complete this matter of the
14 new exhibit, would you turn to exhibit 63, statement
15 405. Is the item under "Track maintenance and Deprecia-
16 tion," \$2,155,000.00 changed as a result of this new
17 exhibit 132?

18 A. Yes; the two items....

19 Q. And the 482,000?

20 A. Yes.

21 Q. These are changed?

22 A. Yes.

23 Q. Is the item of 262,810 dollars now changed?

24 A. No.

25 Q. Under "Station and Office Building Main-
26 tenance and Depreciation"?

27 A. No. The superintendant factors is
28 changed and that is contained in those five items below -
29 "road maintenacne supervision and overhead."
30



1 Q. Then there is the combined total of
2 39,917 dollars - lines 26, 27, 28 and 17?

3 A. Just a minute and I will check. Yes,
4 that is included.

5 Q. There is a change there, Mr. Stenason?

6 A. As a result of the superintendente adjust-
7 ment factors which I explain under item 5.

8 Q. So that is another change. Then, the
9 items at lines 19, 20 and 21, become the change mentioned
10 in your item 3?

11 A. Yes.

12 Q. That is another change?

13 A. Yes.

14 Q. And the 239,000 at line 24 is changed
15 under your number 4?

16 A. Yes.

17 Q. So that every figure in exhibit 63 is
18 now changed?

19 A. No, I wouldn't say every figure in exhibit
20 63 was now changed.

21 Q. What is the new figure for column 10?
22 We will start down column 10. Is 2,155,228 the correct
23 figure?

24 A. No, there is a change there.

25 Q. The 482,000?

26 A. Could I make a correction? -

27 MR. SINCLAIR: Let the witness finish his
28 answer.

29 THE CHAIRMAN: Everybody is impetuous this
30 morning.



1 MR. STENASON: There is a change in the super-
2 intendant which affects each of these figures because
3 this superintendant is applied on to the other...

4 Q. We will just do it one at a time. We
5 will start with for track maintenance and depreciation.
6 Is .16441 the correct co-efficient?

7 A. That is .16075.

8 Q. It is now .16075. What about the adjust-
9 ment factors, 1.01430?

10 A. That is the same.

11 Q. The adjusted, .16676?

12 A. That is .16711.

13 Q. Superintendence, .00941?

14 A. That is .00864.

15 Q. The total co-efficient on unit cost,
16 .176...

17 A. .17575.

18 Q. The output unit of study traffic?

19 A. They are the same.

20 Q. What is the final sum?

21 A. 2,158,089.

22 Q. Looking up at the top line, "road mainten-
23 ance and superintendants and overhead," unadjusted co-
24 efficient, .3586?

25 A. .3288.

26 Q. The adjustment factor?

27 A. It is the same.

28 Q. The adjusted co-efficient?

29 A. .05247.

30 MR. MAURO: Mr. Chairman, I point this out



1 simply to show the nature of the changes that have been
2 brought about by exhibit 132, and I would recommend, to
3 save the time of the Commission, that the C.P.R. be now
4 asked to file new exhibits for 63, 64, 65, 66, 67, 68,
5 69 and 70; and also the summary appearing at page 30 of
6 the precis at page 2816 of the transcript.

7 We make this request because we feel it is
8 the only method of obtaining the corrected exhibits other
9 than going to each line as I have done and obtaining the
10 new co-efficients and the variables and the new adjust-
11 ments; because these exhibits are changed in almost every
12 one of the numbers in this study.

13 I would make that motion and then I will continue
14 my cross-examination.

15 MR. SINCLAIR: It is quite obvious that there
16 has been a strategy meeting among my friends, and the
17 strategy of the meeting is to try and get a further
18 delay after five or six months, in my submission; and
19 what all this intensive work has done is to make relatively
20 minor changes in the situation overall.

21 If my friends are at any major disability I
22 am very much surprised, because the bases of the changes
23 were suggested by the consultants with the exception of
24 a few of the minor adjustments, and the major adjustments
25 arise from macro-testing of the constant which I referred
26 to before.

27 It does seem to me that the suggestion that
28 all these numbers should be changed, as has now been
29 requested, is unnecessary and is not required to enable
30 my friends to handle this thing in a realistic way.



1 MR. FRAWLEY: Thank you for telling us how to
2 handle it.

3 MR. SINCLAIR: I hear the voice of...

4 MR. FRAWLEY: And you will continue to hear it
5 when you make suggestions that this is a piece of strategy
6 on our part, because it certainly isn't.

7 MR. SINCLAIR: I have made my submission.

8 THE CHAIRMAN: Well, we will consider your
9 application. It is not granted at the moment at all.

10 MR. MAURO: Then, before I am finished with the
11 witness, Mr. Chairman, I feel that I certainly will
12 have to go through every item of these exhibits to get
13 the correct figures put into them.

14 THE CHAIRMAN: We don't want to drag things
15 out too much.

16 MR. MAURO: Nor do I.

17 It is certainly a little disconcerting to hear
18 something like changes brought about by my learned friend
19 being mentioned as being used as a stratagem.

20 MR. SINCLAIR: There was no reason, Mr. Chair-
21 man, except my desire to assist counsel, for putting this
22 out when I did. I could have made the changes in the
23 witness box with the witness when he was there. It
24 was to assist my friends that I did give them this over
25 a week before they were going to be dealing with the
26 matter.

27

28

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1
2 MR. MAURO: My learned friend knows, and the
3 Commission knows, it has nothing to do with counsel.
4 It could have been given to counsel a month ago. Why
5 do you think we have hired these experts? We have
6 hired them because we don't understand this business.
7 Our experts are doing a complete new cost analysis,
8 and they are using the data supplied to us, and if that
9 data supplied to us has been changed, our work is meaning-
less.

10 THE CHAIRMAN: Well, we will take a break
11 now.

12 ---Short recess.

13 THE CHAIRMAN: Order, please. Mr. Sinclair?

14 MR. SINCLAIR: Mr. Chairman, in view of the
15 fact that my friend, Mr. Mauro, -- and I take it, my
16 friend Mr. Frawley -- would like, and think it would be
17 of some assistance to them, to have this done, we
18 suggest to the Commission that there is a firm here in
19 Ottawa, if we can get priority, and we will try to do
20 so, and I think we likely can, and we will photograph
21 these statements up and we will try to have them back
22 here by three o'clock. I would therefore suggest that
23 the Commission, if they wish this done, and if they
24 feel that the assistance of counsel is to be given and
25 want that done, that we adjourn now and reconvene at
26 three o'clock, and in the interim we will try to have
27 sufficient copies for the Commission and counsel and
28 their advisors; about twenty-five copies.

29 MR. MAURO: These are the working papers that
30



1
2 are going to be photographed?

3 MR. SINCLAIR: No. The figures on the pages
4 which you have reference to -- 66, 67.

5 THE CHAIRMAN: The corrected exhibits.

6 MR. SINCLAIR: Sixty-three to 70.

7 COMMISSIONER MANN: And page 30 of the
8 memorandum.

9 THE CHAIRMAN: Mr. Mauro?

10 MR. MAURO: That is fine on the exhibits,
11 but what about the working papers that underlie the
12 figures so that our consultants can take these back and
13 reprocess them?

14 THE CHAIRMAN: Well, I don't think that can
15 be done.

16 MR. SINCLAIR: Well, Mr. Chairman, I just --
17 well, I won't say any more about this. I can under-
18 stand what this is, and I must say that I think we have
19 tried to be co-operative here in the suggestion we have
20 made.

21 MR. FRAWLEY: Do I understand the various work-
22 ing papers behind the changes in Exhibit 132 are not
23 being volunteered for our consultants immediately?

24 THE CHAIRMAN: Oh, yes, I understand they are
25 available.

26 MR. SINCLAIR: They are open.

27 THE CHAIRMAN: But they are not being copied.

28 MR. FRAWLEY: We want them sent to Washington
29 immediately so that Mr. Banks can work on them. Let us
30 be clear about that.

MR. SINCLAIR: Well, we are not sending the



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1
2 working papers to Washington.

3 MR. FRAWLEY: Well, that is the issue.

4 THE CHAIRMAN: We will adjourn now until 3
5 o'clock.

6 MR. SINCLAIR: And we will do our very best
7 to have the statements back by then.

8 ---Whereupon the Commission adjourned at 11.35 a.m. until
9 3 p.m.

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---On resuming at 3.00 p.m.

THE CHAIRMAN: Order, please. Very well,
Mr. Mauro.

MR. MAURO: Q. Mr. Stenason, would you refer
to a letter sent to you on May 4, 1960, by R. L. Banks.
The date was May 4, 1960.

A. Yes, I have that, Mr. Mauro.

Q. On the last page there appears this para-
graph:

"We note that your WP-11 provides a composite figure
for freight car hire of all types of cars. It is
possible to secure net hire debit or credit figures
by type of car, ie., for stock, flat, ore, box, auto,
gondolas, reefers and hoppers-coal shown separately?
If so, receipt of these data would be much appreciated.

We are of course making every endeavour to ac-
commodate the Commission's time-schedule. Your co-
operation towards meeting this objective is solicited.

Yours very truly,

Robert L. Banks."

And your reply of May 6:

"There is no data available on net hire debit or
credit by type of car."

A. Yes, that is correct.

Q. Are you familiar with the tabulations and
records maintained by the Railway Association of Canada?

A. Yes, with most of them.

Q. I show you the freight car locations for
January, 1958. Does that contain a breakdown of the
number of cars owned by the various railroads, a



1
2 breakdown of box, auto, gondola, and others?

3 A. It shows the number of cars owned, the
4 home cars on Canadian and foreign lines. It shows
5 nothing on per diem debits and credits.

6 Q. Does it not show the on line cars, the
7 total number of cars owned by the various railways?

8 A. It shows the total cars on line and the
9 cars owned.

10 Q. Where do you think they would receive
11 that information?

12 A. This data is available in our accounting
13 records. We do not have split out the per diem factor
14 between different types of cars.

15 Q. Couldn't that data that Mr. Banks requested
16 of you be readily available?

17 A. Well, I checked with our accounting depart-
18 ment to see if it could be made available, and I found
19 it could not be made readily available.

20 Q. You and I were discussing at one point
21 yesterday as to whether or not there were reductions
22 possible in larger cuts in switching of freight cars, and
23 I referred you to Mr. Wright's formula and you advised
24 me that from your investigation Mr. Wright was wrong.
25 At page 11813 I asked you:

26 "Are you familiar with an article in The Railway
27 Age, January 4, 1960, entitled 'How Cars in Multiple
28 Cut Costs'? It is commonly referred to as the
29 Wright formula.

30 A. Yes, I am familiar with the article, and I
might say we tested this formula in Canadian



"Pacific.

Q. What did you come up with?

A. With a disagreement with Mr. Wright on the influence of size of cut on yard costs."

I would now like to have clarified the opinion of someone else who is interested in these matters, namely, Messrs. Meyer, Peck, Stenason and Zwick. At page 313 it says:

"One disturbing aspect of these functional relationships is the large size of the constant terms in both cases. It would be convenient to ascribe these constants to unproductive time, but such time has been excluded by definition from the data used in the analysis. Careful inspection of the data in Tables B-6 and B-7 indicates that these constants are due to a substantial nonlinearity in the relationship for the smaller blocks, and particularly for blocks involving a small number of cuts. This is true of both the hump yard and flat yard operations, a fact which is best substantiated by a quick perusal of the minute-per-cut column in both tables. The time consumed for cuts seems to drop sharply as the number of cuts per block of cars is increased."

Now, I assume that your investigations for the Canadian Pacific Railway not only convinced you that Mr. Wright was wrong, but that Messrs. Myer, Peck, Stenason and Zwick were also wrong.

A. Well, could I say something? The source of this table is E. C. Poole, Traffic Capacity of Railroads. I know at the time that this was written that we had some data from the Chesapeake and Ohio, and I discussed at that time this matter with Mr. Wright; he is with the C. N. R. Now, irrespective of that,



1
2 the studies which we have done in Canadian Pacific have
3 led me to revise my thinking on the matter.

4 Q. So that your experience in 1947 to 1950
5 and the data you obtained in the United States and the
6 basic data upon which Mr. Wright evolved his formula
7 do not coincide with your personal experience in the cost
8 study which you have submitted to this Commission?

9 A. And with the tasks we have done which I
10 described yesterday.

11 Q. Now, you suggested to my learned friend
12 Mr. MacKimmie this morning that branch line trains operated
13 primarily for switching service?

14 A. It is an important factor in the operation
15 of branch line trains.

16 MR. SINCLAIR: I think the evidence was that
17 it was way trains, not branch lines, as I recollect it.

18 MR. MAURO: Q. Is that correct?

19 A. Yes, way trains. For example, we did a
20 little study to determine the percentage of time that was
21 involved in way switching on branch line way freight
22 trains, and we found that the switching time amounted to
23 some 76 per cent of the running time, or a little less than
24 half of the total time of the trains.

25 Q. Is that study available, Mr. Stenason?

26 A. Yes.

27 Q. Could it be made available to us?

28 A. Just let me check a minute. Yes, we have
29 the data available.

30 Q. Thank you. Isn't it true, Mr. Stenason,
that the average weights of trains on the C. N. R. way



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trains are far below the tonnage ratings, hauling power?

A. Yes, it is generally true.

Q. And as the way trains are operated primarily for switching service, isn't it true that most of their fuel and crew cost is incurred in road movement rather than switching service?

A. This is a rather difficult question to answer, Mr. Mauro. The wage agreements of the company provide for the payment of crew wages on way trains, and they reflect way switching work and running work. We have in our study separated the way switching work from the running work by applying a factor which reflects the basis upon which way freight crews are paid and the speed at which way switching is done.

Q. Does your study point up that most of the crew wage and fuel cost is incurred in road movement rather than switching service?

COMMISSIONER BALCH: I think probably there is a little misunderstanding. If you are referring to switching service within yards and compare that with switching service out on the road.

MR. MAURO: Yes, train switching.

THE WITNESS: Yes, there is a different basis of payment.

MR. MAURO: Thank you very much, Mr. Balch.

Q. Now, I am asking you whether or not your study reflected the fact that crew wage and fuel cost is incurred in road movement, the greater proportion of crew wage and fuel cost is incurred in road movement rather than switching service?



1
2 A. Well, we have the actual figures. We
3 can get them for you. They are not available at the
4 moment. There is an adjustment factor applied to
5 equate them out. The adjustment factor is $12\frac{1}{2}$ over 6.
6 It is an adjustment factor for train switching and train
7 running.

8 Q. I am advised that 80 per cent to 85 per
9 cent of the crew wage and fuel costs on the branch line
10 way trains are incurred in road movement rather than
11 switching, as you yourself have computed them in the
12 study?

13 A. I would have to check these figures,
14 Mr. Mauro.

15 Q. And if this were correct -- and you will
16 check that -- could we not conclude from this that the
17 road haul portion of branch line way train operation
18 is a relatively and perhaps absolutely constant cost?

19 A. No, I don't think we could conclude that.
20 It would involve the assumption that the way train would
21 continue to operate regardless of the volume of business
22 to be done, and that is clearly incorrect, and that has
23 been tested through analysis of Canadian Pacific way
24 trains and adjustments to the schedules of way trains,
25 analysis of the frequency of service.

26 Q. Well, Mr. Stenason, now I am going to direct
27 your attention to non-solely related branch lines, which
28 branch lines have scheduled runs, these are scheduled
29 freight train runs, and these trains are operated on a
30 regular basis, and those costs would be there whether
they moved a carload of grain or if they moved no grain



1
2 whatsoever.

3 A. No, the schedules are changed, Mr. Mauro,
4 twice a year, and in many cases the trains do not always
5 operate upon the schedules set forth. This is freight
6 service which we are discussing. If you are referring to
7 the working timetable, there are frequent changes in
8 the schedules. We are talking about long-term variability
9 here.

10 Q. And you are suggesting that you would
11 approach the costing of the non-solely related branch
12 lines and hold that the crew wages and fuel costs of the
13 way trains are 100 per cent variable?

14 A. Yes, I would.

15 Q. And that the products therefore carried
16 over those lines would have to meet their fully distributed
17 cost, including the total 100 per cent cost of the crew
18 wage and fuel?

19 A. Yes.

20 Q. Do you have any idea of the minimum number
21 of trains you have to operate to still consider yourself
22 operating a railroad?

23 A. We have a great many way trains which are
24 on an as-if-and-when-required basis. This means that the
25 train goes depending on the volume of business and
26 volume of traffic to be moved. Now, I have referred to
27 a number of tests on this point, and perhaps I could just
28 read into the record the results of those tests, or some
29 of them. We stratified, we classed all of our way
30 freight operation in the prairie and Pacific regions by
frequency of service, ranging from four or more trains



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2 per week down to 2 trains per week, one per week, two
3 per month and on as-if-and-when-required basis, and then
4 compared the weights of trains with these various groups,
5 within these various groups, and we found variation in
6 weight of a train of 1,120 tons for the most frequent
7 service and 860 for the next, 810, 970, 1200, 800, which
8 indicates in my view quite a consistent pattern of
9 flexibility in way train operations.
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2 Q. The result of this test you have just
3 read from would be available also as to stratification
4 of the prairies and Pacific regions and the number of
5 trains?

6 A. We have the working papers, yes.

7 Q. On the non-solely-related lines train
8 service is primary, other than grain cargo, I take it --
9 grain traffic?

10 A. No; grain formed, in many cases, an
11 important and fairly high percentage of the traffic
12 moving on a number of branch lines and also in some...

13 COMMISSIONER GOBEIL: Would that "high"
14 mean over 50 per cent?

15 MR. STENASON: In some cases, over 50 per
16 cent; but in one of the tests we used it was about 70
17 per cent of local traffic. But there are certain
18 branch lines with a high volume of grain.

19 MR. MAURO: Q. Well, one of the inherent
20 factors in the definition of solely-related and non-
21 solely-related was, in the case of non-solely-related
22 lines, the preponderance of the service and of costs
23 and of purpose of the line which was not primarily for
24 grain?

25 A. We had quite a rigid test on those
26 solely-related lines based, in part, upon the total
27 volume of local traffic in relation to the total local
28 freight traffic, and this worked out, in solely-related
29 lines, to an average of grain to total of 82.4 per cent;
30 and there were, on some lines, about 70 per cent. But



1
2 there still would be a number of branch lines in the
3 prairie regions with a lesser proportion of grain in
4 relation to the total, but with still significant
5 grain traffic over the lines.

6 Q. I would very much appreciate it if you
7 could answer my question as to whether or not, in your
8 cost study, the classification of the lines as non-
9 solely-related to grain -- whether it could be assumed
10 by this Commission and counsel that on those lines
11 so designated as non-solely-related the prime factor
12 of operation and costs involved is grain?

13 A. No, I don't think that could be assumed.

14 Q. Are there any of the non-solely-related
15 lines that are solely-related?

16 A. No, not to my knowledge.

17 Q. Well, how do we -- we went over this
18 yesterday and I don't want to repeat it -- but if,
19 in fact, there are some of the non-solely-related lines
20 which still have a preponderance of service to grain
21 and a portion of traffic in grain but are still non-
22 solely-related, how are they distinguished from those
23 lines that are solely-related?

24 A. Well, you will recall that one of our
25 tests on the solely-related branch lines showed the
26 grain volume had to be approximately 70 per cent of
27 the total volume over and above. Now, we could
28 still have lines with 45 per cent, or 50 per cent, or
29 55 per cent grain and we would not so treat it as
30 being solely related, nor could we then say that a



1
2 major portion of the traffic moving over it was grain.

3 Q. And do some of those branch lines also
4 operate at a deficit? The ones that just had 50 per
5 cent or 60 per cent but not quite 70 per cent -- you
6 costed them. Would they operate at a deficit
7 revenue-wise?

8 A. They were not costed out for the
9 purpose of determining whether they were being operated
10 at a profit or a loss.

11 Q. Was the first determinant in costing
12 the percentage of grain handled over the line?

13 A. We described the three tests yesterday,
14 Mr. Mauro, and the first test, again, was to cost the
15 non-grain traffic moving over the lines -- the net
16 revenue from the non-grain traffic moving over the line --
17 and to see if this was sufficient to cover the size
18 related costs.

19 Q. You tell me the first test is to check
20 the non-grain traffic moving over the line and to see
21 whether or not that revenue is sufficient to meet the
22 sizeable related costs. Can you tell me how you
23 determine whether the revenue was sufficient to meet
24 the sizeable related cost if you didn't, in fact,
25 cost the branch lines?

26 A. We cost the non-grain traffic moving
27 over the branch.

28 Q. Didn't you ever take a full cost to see
29 whether the revenue came up to the full cost?

30 A. No; this was done through the use of



1
2 unit costs -- for example, car repairs -- and we were
3 only concerned with the output of non-grain traffic.

4 Q. So that we have the 70 per cent category
5 as a sort of floor level of branch lines solely
6 related?

7 A. Approximately, yes.

8 Q. What about the artery branch line?
9 How much percentage of grain moves over the artery
10 line?

11 A. This shows up in the working papers you
12 have been supplied with as being less than 70 per cent.
13 However, only the part of the line north of Stonewall
14 was taken as being closely related, since the bulk of
15 non-grain traffic moves between Winnipeg and Stonewall.

16 Q. That was not a consideration. The
17 percentage of grain on the Arborg line is 36.8 per cent?

18 A. On this line, as I said, it being the
19 portion of the line from north of Stonewall.

20 Q. So you want to qualify it now and say
21 that in the case of the Arborg line it is on that
22 portion that the 70 per cent applies?

23 A. I believe this was pointed out in a
24 footnote to one of the exhibits which we supplied.

25 Q. How about Lyleton? What is the
26 percentage of grain there?

27 A. 84.8.

28 Q. In this book it says 34.8?

29 A. At Lyleton? My work paper says
30 84.8.



1 Q. What about Colonsay? --

2 MR. SINCLAIR: That is in Saskatchewan.

3 MR. MAURO: Q. What is the percentage
4 on that one?

5 A. 59.2.

6 Q. It didn't come quite up to the 70 per
7 cent?

8 A. No, that was a little short of it.

9 Q. And what about Cassils?

10 A. That was 62.9.

11 Q. That just didn't quite make it?

12 A. I would like to point out that the
13 weighted average for all these lines was 82.4.

14 Q. That is the qualification of that.
15 Now, is investment per mile of track the same on branch
16 lines as on main lines?

17 A. The total investment per mile of track?

18 Q. The total investment per mile of track?

19 A. No.

20 Q. How have you made allowance for that in
21 computing the investment cost per mile of track which
22 is related to the...

23 A. This was done through regression
24 analysis which splits out the minimum level of in-
25 vestment for a mile of track and separates the in-
26 fluences of output.

27 Q. Have you tried to reconcile your cost
28 allocation method with your total operating cost which
29 you report to the Board of Transport Commissioners?
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A. I don't understand the question.

Q. Don't you make an annual report to the Board of Transport Commissioners?

A. Yes.

Q. Setting out your total operating costs of the system?

A. Yes.

Q. Have you tried to reconcile your cost allocation method and the total arrived at therefrom with the statement you make to the Board of Transport Commissioners?

A. Well, the statement we make to the Board of Transport Commissioners is a basic source document for our cost material.

Q. Have you...

A. Yes, it is reconciled.

Q. It is reconciled?

A. Yes, in the constant term.

Q. Is it reconciled in Exhibit 132?

A. Yes.

Q. And was it reconciled before Exhibit 132?

A. No; for the reasons that I mentioned this morning.

Q. Now, regarding communication costs, Mr. Stenason, if you would refer to Exhibit 68 I notice that you have charged grain with \$645,337 for communication charges?

A. Yes.



1
2 Q. I wonder if you could explain why you
3 used train miles instead of train hours, since it
4 would seem to me that the use of train miles would
5 penalise freight. If train miles had been used...
6 I will start over again. As I understand it, you
7 used train hours instead of train miles?

8 A. We used train hours on the separation
9 between freight and constant on the one hand and
10 passenger on the other.

11 Q. If train miles had been used there would
12 have been a greater cost allocated to passenger service?

13 A. The reason for using train hours was
14 the nature of the expanse. Communication is associated
15 with despatching insofar as railway operations are
16 concerned, and train hours is a better measure of
17 that type of activity than is train miles.

18 Q. Would not a method utilizing train
19 miles instead of train hours apportion the greater
20 cost to passenger services?

21 A. Well, I will have to check the figure.

22 Q. Are you familiar with the method utilized
23 by the I.C.C. on this item?

24 A. I don't have it before me.

25 Q. Are you familiar with it?

26 A. I have read a great deal of I.C.C.
27 material.

28 Q. I take it you are familiar with the
29 rules governing the separation of...

30 MR. SINCLAIR: You are reading from a



1
2 document.

3 MR. MAURO: Q. Are you aware whether
4 the I.C.C. utilize the system you used in the allocation
5 of this expense account?

6 A. No, I am not aware.

7 Q. I would suggest that they allocate it
8 on maintenance of way superintendence, maintenance
9 of equipment, traffic, transportation, superintendence
10 and despatching trains, and I understand that you
11 only took into consideration the final item, despatching
12 the trains?

13 A. Well, no, we took into consideration
14 an output unit of train hours which, we felt, best
15 represented the factors associated with the expanse.

16 Q. And I suggest that you used every means
17 possible -- and I suggest that this is a good example --
18 to see that you could penalize freight and, through
19 freight, to attribute a maximum of the amount of the
20 allocation to statutory grain?

21 A. I don't agree.

22 Q. How do you justify the figures you
23 take into account, such as the one on grain operations,
24 which are affected by the communications system?

25 A. Well, this is the basic reason for
26 communications expense.

27 Q. Is that the conclusion that the I.C.C.
28 has come to -- after all your reading of I.C.C.
29 data?

30 A. Well, I would like to analyze the



I.C.C. documents.

Q. As I understand it, Mr. Stenason, your cost item of \$645,000 represents 95 per cent of the total cost of this item?

A. I beg your pardon?

Q. According to our calculations the \$645,000 that you have attached to communications -- assuming that is 1.965 per cent -- would come to 95 per cent of the total cost of that item?

A. No.

Q. As allocated to general freight?

A. 95 per cent of the total item? I certainly can't conceive that.



1 Q. I am saying -- and you can correct me --
2 that 95 per cent of the total cost under communications
3 expenses have been attributed to freight, and that
4 5 per cent has been attributed to other services, under
5 the method that you have utilized?

6 A. Just wait until I get the working paper.
7 I have the figures before me: the total system expense
8 in 1958 was 5,725,000, and the total amount allocated
9 to freight service 5,455,000.

10 Q. How does that work out to you -- what
11 percentage? Try 95.2840?

12 A. Well, if you have the figure.

13 Q. Yes; you are not as shocked now as you
14 were when I suggested it to you?

15 A. Well, I thought what you were suggesting
16 earlier was, we had charged 95 per cent of communication
17 expense to grain.

18 Q. You only charged \$625,000.00, but it
19 was based on a percentage of the amount charged to
20 freight, and by a mathematical calculation you were
21 able to work out that 95 per cent of the cost of this
22 item was an expense on freight?

23 A. All of these apportionments were based
24 on special studies.

25 Q. Mr. Stenason, you will also file the
26 special study on communications and how you worked out
27 that 95 per cent of that expense as properly allocatable
28 to freight service? Will you file that study?

29 A. We can file the basis of the figures.

30 Q. The basis upon which you made this judgment.



1 That will be filed, will it?

2 A. If we can locate it, yes.

3 Q. You would not have lost anything as im-
4 portant as \$5,000.00 worth of expenses?

5 A. No; these are based on special studies
6 which were done about two years ago on the passenger
7 component of the total system expense in Traffic and
8 in General.

9 Q. Our consultants and the consultants for
10 the grain trade have certainly not seen the studies yet,
11 and we certainly know you would want us to see them.

12 MR. SINCLAIR: They will be made available,
13 sir.

14 MR. MAURO: Q. Re Equipment Maintenance,
15 exhibit 64, I believe there is an item of \$726,000.00
16 allocated to the study traffic; is that correct?

17 A. Yes, that is equipment maintenance,
18 superintendence, and overhead.

19 Q. That has been amended by exhibit 132,
20 hasn't it?

21 A. It has been amended to the extent to
22 which the base figures on direct equipment maintenance
23 were amended. This was an overhead ratio which has been
24 filed.

25 Q. Did you find any fixed costs under this
26 account?

27 A. Yes.

28 Q. What was the proportion of fixed costs?

29 A. I don't have the proportions worked out.

30 We had fixed costs of \$38,000 per district. This was



1 based on ten observations which the three years separated,
2 so it would take me a little while to work it out.

3 Q. Would you consider that to be a substantial
4 fixed charge on the amount which you have determined as
5 a variable?

6 A. I would have to work out the proportions.
7 Just a minute, I may have them. No, I will have to
8 compute it.

9 Q. That is fine. On the same exhibit, 64,
10 at lines 12 and 13, Road Locomotive Repairs and Depre-
11 ciation, you have charged grain with \$2,640,000.00 for
12 Road Locomotive Repairs and Depreciation?

13 A. Well, the figures are not added up here,
14 but that is a simple matter.

15 Q. Did you find any constant in the fixed
16 charge in that item?

17 A. We discussed road locomotive repairs
18 yesterday.

19 Q. Let us discuss it again as to whether or
20 not you found a constant?

21 A. No, there is no constant included.

22 Q. I refer you to page 298 of the Myer book:

23 "Though the two measures of capital stock
24 size have been eliminated, a substantial fixed
25 cost for road engine maintenance is indicated by
26 the very large constant of \$1,800,875.00, which
27 is approximately one quarter of the total average
28 maintenance outlay made by the 25 large included
29 systems."

30 I wondered whether your experience in 1947 to



1 1950 associated on this study was duplicated in your
2 study for the C.P.R. that you have presented to this
3 Commission?

4 A. I am just refreshing my memory on this.
5 As I recall, we were testing the fuel consumption re-
6 lationship with repair expenses at the time.

7 MR. SINCLAIR: At what time?

8 MR. STENASON: At the time this was done.

9 MR. SINCLAIR: "This" being what?

10 MR. STENASON: 1947 to 1950.

11 MR. MAURO: Q. We could perhaps get a little
12 more information on your thinking in 1947 to 1950.

13 "While most engineering information would appear
14 to indicate that engine maintenance costs vary
15 primarily with degree of utilization, particularly
16 for diesel engines, it is also clear that there
17 are some categories of engine maintenance that
18 vary primarily with miles of travel or the passage
19 of time, for example, wheel and superstructure
20 repair. Furthermore, it is not as easy as a rule
21 to cost a particular freight shipment in terms of
22 fuel consumption as it is in terms of the more tra-
23 ditional measures of engine road miles. The fit,
24 moreover, between fuel consumption and maintenance
25 outlays, as shown in Figures B-2 and B-3, is not as
26 close as might be desirable. Consequently, a
27 second analysis of road diesel engine maintenance
28 was executed in which repairs to road diesels are
29 looked upon as a function of road miles of freight,
30 road miles of passenger traffic, estimated excess



1 fuel consumption (column 6, Table B-3), estimated
2 tractive effort in freight service, and estimated
3 tractive effort in passenger service.

4 When the analysis was performed, it was found
5 that the two measures of capital stock, estimated
6 tractive effort in road freight and passenger
7 services, were so closely correlated with the
8 measures of utilization as to effectively obscure
9 the analysis. Apparently, every road was utilizing
10 its diesel fleet to almost exactly the same extent;
11 probably to the fullest extent possible. In
12 other words, this was a period in which very few
13 roads had as many road diesels as they really
14 wanted and consequently every road diesel was fully
15 employed. "

16 Then you go on and state:

17 "Though the two measures of capital stock
18 size have been eliminated, a substantial fixed
19 cost for road engine maintenance is indicated by the
20 very large constant of \$1,080,875..."

21 Anyway, Mr. Stenason, regardless of what you,
22 in association with Messrs. Myer, Peck and Zwick, dis-
23 covered in your study of the American roads, when you
24 made your study of the cost of handling statutory
25 grain in Canada you came to the firm conclusion that there
26 was no constant in this item and that it was completely
27 variable?

28 A. That was the conclusion I arrived at.

29 Q. So that your 1958 or 1959 experience
30 was not the same as your 1950 experience?



1 A. Well, as we pointed out in the book,
2 this was a period during which new fleets were being
3 assimilated by the U.S. railway system and that could
4 easily have some impact on the estimates.

5 Q. You have been able to change your mind
6 on some sound basis, because certainly anything in this
7 book must have been based on accurate data. You
8 would not put anything misleading in a well-bound book.
9 You are just as certain of your decision in the findings
10 for the grain costs studies nine years later: do you
11 think that it is possible nine years hence you may come
12 up with a constant again in this particular account?

13 A. Well, I don't think I can add anything
14 to what I have said.

15 Q. Mr. Stenason, if all grain traffic were
16 to disappear, what would be the effect on the unit costs
17 of remaining traffic?

18 A. Well, that is a rather difficult question
19 to attempt to answer because of the assumptions which
20 are involved and which have to be worked out.

21 Q. Can you venture a guess as to whether
22 the unit costs of other traffic would go down or up?

23 A. Well, we have used variability analysis
24 throughout our study. I would say that in so far as
25 the road maintenance is concerned, the unit variable
26 cost would be the same; in so far as fuel and crew
27 wages are concerned, the unit variable cost would be
28 the same; in so far as yard switching is concerned,
29 the unit variable cost would be the same.

30 Q. If grain traffic did not furnish a large



1 supply of empty box cars at Vancouver, wouldn't the
2 unit costs of the remaining traffic rise?

3 A. Well, if grain traffic were not moving
4 to Vancouver -- this is the difficulty in assumptions:
5 if grain traffic were not moving to Vancouver I am
6 sure there would be not ships at Vancouver and, conse-
7 quently, there would be less import traffic and, conse-
8 quently, there would not be the demand for box cars.

9 Q. What about the movement of products from
10 Vancouver? I understand there is a considerable move-
11 ment of lumber from Vancouver. Does the C.P.R. move
12 any commodities other than those imported by boats?

13 A. Oh yes, but the import traffic is quite
14 significant.

15 Q. British Columbia is expanding and there is a
16 considerable amount of material produced in British
17 Columbia coming back into the other regions of Canada.

18 A. Yes.

19 Q. Where do they get their empty box cars?
20 Do they come in by boat?

21 A. 20,000 empty box cars are moved to
22 British Columbia at the present time.

23 Q. You say 20,000 empty box cars are moved
24 to British Columbia?

25 A. I believe -- oh, 5,000 empty box cars
26 are moved westward to Vancouver -- were moved in 1958;
27 and 20,000 empty box cars were moved eastward from
28 Vancouver.

29 Q. Yes. The grain has to bear the cost,
30 in your cost study, of the empty prior and post empty



1 movement?

2 A. No, the grain bears the prior empty
3 movement.

4 Q. And then the grain carriers are available
5 to pick up a load in Vancouver; is that correct?

6 A. In some cases.

7 Q. In any cases where the traffic is available?

8 A. Yes.

9 Q. You would not send back empty box cars
10 if you had traffic?

11 A. No.

12 Q. And the traffic you pick up in Vancouver,
13 be it by boat or otherwise, gets the benefit of the fact
14 you had taken the load of grain into Vancouver and you
15 had the empty cars and a load is available?

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(Page 11929 follows)



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2 A. Yes, but again we based our empty car
3 movement on the prior empty mileage. Now, we could
4 have based it on the subsequent empty mileage. I doubt
5 if there would have been any difference; it is just a
6 means of securing the empty mileage of the traffic
7 under study. We also tested the empty mileage in the
8 reverse direction of the loaded movement, using I. C. C.
9 proration methods, and we found we would have used a
higher ratio than was indicated in the study.

10 Q. I am wondering if you could tell the
11 Commission, in projecting present-day lines, new present-
12 day branch lines, such as the C. P. R. may have been
13 considering recently, does the C. P. R. demand that the
14 single product causing the line to be built be saddled
with all of the line expenses?

15 A. In the studies which are undertaken in
16 the Department of Research of the Canadian Pacific, an
17 estimate of the cost of building the line and operating
18 it is arrived at, and an estimate of the revenue from
19 the traffic which is anticipated to move over it is
20 arrived at. Now, many of these new lines have been
21 new mining type of lines where the principal traffic
is mineral products.

22 Q. Now, Mr. Stenason, I certainly appreciate
23 your explanation. The question is: If you are presently
24 going to build a line into a mine, is that mine under
25 the present modern policies asked to pay the full cost
26 of that line, the rate that you establish?

27 A. I am not a rate expert.

28 Q. As a cost expert?
29
30



1
2 A. As a cost expert, the economic studies
3 which we prepare include the full cost of the lines.

4 Q. And they would not be built if they
5 could make not just an adequate contribution to revenue
6 but you would have to see what they would have to receive
7 to receive full cost, and a decision is based on that
8 -- not only a sufficient revenue but that which bears
9 full cost?

10 A. Well, we are only talking about full cost
11 of the line.

12 Q. And that is what the single commodity,
13 when the line is built, is asked to pay?

14 A. I have no jurisdiction over the policy
15 of the company. I prepare cost and economic studies.

16 MR. MAURO: I want to thank you very much,
17 Mr. Stenason, for putting up with me in a very long
18 cross-examination. I appreciate your co-operation.

19 Thank you, Mr. Chairman.

20 THE CHAIRMAN: Mr. Sinclair?

21 MR. SINCLAIR: I have those documents here,
22 sir, and I assume that the Commission is going to con-
23 tinue, and so if we could take a break we can distribute
24 them.

25 THE CHAIRMAN: We can break now for five
26 minutes.

27 ---Short recess.
28
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30



Table, as revised, shown on page 30 of Mr. Stenason's

Precis of Evidence (Vol. 18, p. 2618)Variable cost

Road Maintenance

| | | |
|---|----------------|-------------|
| Roadway Maintenance (St. 405 Rev.) | \$ 3,662,000 | |
| Road Maintenance portion of solely related facilities | \$4,298,000 | |
| Less credit non-grain traffic (St. 409 Rev.) | <u>677,000</u> | \$7,283,000 |

| | | |
|--------------------------------------|------------|--|
| Equipment Maintenance (St. 406 Rev.) | 10,838,000 | |
| Transportation (St. 407 Rev.) | 13,541,000 | |
| Communications - Rail (St. 410 Rev.) | 635,000 | |
| Traffic and General (St. 410 Rev) | 4,017,000 | |

| | | |
|--|----------------|------------|
| Joint Facility Rents, Taxes (other than Income Taxes) and Interest | | |
| Joint Facility Rents and Taxes (St. 410 Rev.) | \$ 912,000 | |
| Interest | | |
| Road Property (St. 408 Rev.) | \$4,418,000 | |
| Equipment (St. 408 Rev.) | 7,427,000 | |
| Solely Related Facilities | 3,127,000 | |
| Less credit non-grain traffic (St. 409 Rev.) | <u>493,000</u> | 15,391,000 |

\$51,705,000

Total Cost

| | | |
|--------------------------------------|------------------|---------------------|
| Constant-System (St. 411 Rev.) | \$12,130,000 | |
| Constant-Size Related (St. 412 Rev.) | <u>7,994,000</u> | 20,124,000 |
| | | <u>\$71,829,000</u> |



1
2 THE CHAIRMAN: Order, please.

3 Do you want to file these, Mr. Sinclair?

4 MR. SINCLAIR: Well, with the permission
5 of you, Mr. Chairman, and the Commission, and in accord-
6 ance with the suggestions made, we have prepared revised
7 statements, being Exhibits Nos. 63 through 70, and they
8 are marked serriatum 63 through 70 (revised), and they
9 all reconcile with Exhibit 132. In addition -- and I
10 don't think this needs to have an exhibit number -- as
11 suggested by Commissioner Mann, we have made the adjust-
12 ments to page 30 of Mr. Stenason's precis of evidence,
13 that is volume 18, page 2618.

14 The Secretary has suggested that this last
15 matter to which I have just referred go into the
16 transcript as a table, and if it is agreed that we do
17 that, and then if you want to paste it into your other
18 documents, you can do that.

19 THE CHAIRMAN: Mr. Dickson?

20 CROSS-EXAMINATION BY MR. DICKSON:

21 Q. Mr. Stenason, would you turn to Exhibit
22 132, please, page 5, item 12.

23 A. Yes, sir.

24 Q. There is a restatement of certain expenses
25 and a reduction, and the concluding words of your explan-
26 ation are:

27 ".....and giving weight to switching under winter
28 conditions."

29 Would you please tell me what is meant by that
30 expression?



1
2 A. Yes. We analyzed the yard time per car
3 at 6 yards in western Canada to determine the average
4 time, that is yard engine minutes, per car handled
5 during the summer months and the average time per car
6 during the winter months. It was found that the
7 winter observations were 15 per cent higher per unit than
8 the summer observations, and an adjustment was therefore
9 made to the yard switching minutes at yards where this
differential is applicable for the winter months.

10 Q. Mr. Stenason, in your memorandum you
11 emphasize the fact that this factor of winter switching
12 and the additional cost that might be imposed was not
13 taken into account in your figures, and your counsel,
14 Mr. Sinclair, referred to it in the transcript, volume
15 18, page 2498. At the bottom of that page Mr. Sinclair
asked you:

16 "And you have said these higher switching costs
17 in the wintertime in western Canada were not
18 included in the costs of moving the grain to
19 export positions as presented to the Commission?

20 A. Yes, that is correct."

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22 (Page 11939 follows)
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Do I understand that you have now switched from that position and that you have added, in effect, a penalty to your item No. 12?

A. Yes; to reflect the cost of winter operations.

Q. And what is the dollar value of that additional penalty?

A. It was about 300,000 minutes. Now, that is 3,000 miles. We will have to compute that.

Q. Well, just give me a round figure?

A. It would be in the order of \$50,000 or \$60,000.

Q. What prompted you to make this change in your position?

A. Because we felt that this switching under winter operations is more expensive than switching under summer operations and we felt it was a factor which should be properly reflected in the study.

Q. But you knew that at the time you prepared your memorandum?

A. Yes; although we hadn't the test which indicated the extent to which it was a factor; we had some tests, I believe.

Q. When were these tests performed?

A. They were performed during the last two months.

Q. They hadn't been performed at the time you were examined here in December?

A. We had discussed the matter with our



1
2 yard expert. I don't know whether he had any tests
3 available at that time or not. They have been
4 completed since, I am informed.

5 Q. Within the last two months?

6 A. Yes.

7 Q. Would that be representative of winter
8 conditions?

9 A. No. The data reflected winter con-
10 ditions. The work on the data was done during the
11 last two months.

12 Q. When were the field studies done?

13 A. The data was generated by switching
14 operations during the winter of 1958.

15 Q. The winter of 1958?

16 A. Yes. They were not field studies.
17 That is, the basic data on which these tests are
18 based is contained in the company's records.

19 Q. But last December -- December 1959 --
20 at page 2497 of the transcript you were answering some
21 questions of my learned friend, Mr. Sinclair, and at
22 the bottom of page 2496 you were asked:

23 "Q. Would you consider the months in
24 which these studies were conducted represent-
25 ative of switching in these yards over
26 the year?

27 A. No, sir, they would be representative
28 of switching in these yards during the
29 summer period. We have tested the
30 yard engine hours and cars through yards



1 on Canadian Pacific during the winter
2 period, and we find that the minutes per
3 car handled are from 10 to 15 per cent
4 higher during the winter than they are
5 during the summer.
6

7 Q. And was that higher switching time and
8 the costs associated therewith taken into
9 account in developing the variable cost
10 of moving the study traffic as presented
11 to this Commission?

12 A. No, sir.

13 Q. It could be done?

14 A. It could be done, although I would want
15 a far more accurate estimate of the --
16 pardon me, I would want studies during the
17 winter period. I would not want to rely
18 exclusively on this overall ratio that
19 we developed."

20 That would indicate to me that as
21 recently as last December there were certain winter
22 studies you did not have and which, you felt, were
23 necessary before determining the penalty to be applied
24 for winter switching; and yet you say that the amount
25 of the penalty was determined from studies that were
26 conducted in 1958?

27 A. The studies were not conducted in 1958.
28 The data upon which the adjustment factor was based
29 was generated from yard operations in 1958.

30 Q. When you say "I would want studies



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during the winter period" what are you talking about?

A. Well, just what is said. I remember discussing this with our yard expert at the time and he gave me the over-all factor of ten per cent to fifteen per cent. That was later checked out to our yard expert and the data was developed which supported the fifteen per cent.

Q. And it checked out at exactly fifteen per cent?

A. Well, it was 15.3, I believe. Just a minute, though -- yes, 15.3.

Q. And that was the percentage that was applied?

A. Yes.

Q. And for what portion of the year would it be applied?

A. That was applied for the four-month.... Just a minute. November 15 to March 15 was the period included in the survey.

Q. And to what percentage of the traffic?

A. That was applied to traffic during three months -- three or four months -- to reflect the major volume of grain which is moving during the summer period. I can get that ratio for you. Yes, during the four-month period.

That is, the studies indicated that from November 15 through March 15, the factor of additional yard time for winter operation was 15.3 per cent. That was a longer period than four months. That was applied to four months' observation on the yard traffic to reflect



1 the normal movement of study traffic during the spring
2 and summer - the opening of navigation.

3 Q. That would be about 29 per cent of the
4 movement during that four-month period?

5 A. Approximately.

6 Q. Then, item 14 on the same page - "Grain
7 Door" - that seems to run to a pretty substantial figure,
8 but I notice that there is an alteration in that figure
9 from 768,000.00 dollars to 716,000.00 dollars. What is
10 the purpose of these grain doors?

11 A. The purpose of the grain doors is to keep
12 the grain in the cars. It is a wooden door which fits
13 inside the box car door.

14 Q. And these doors are subjected to loss
15 and damage which gives rise to this particular figure
16 of over three quarters of a million dollars?

17 A. Yes.

18 THE CHAIRMAN: And some of them are stolen,
19 I suppose?

20 THE STENASON: That is the largest part of
21 the loss and damage.

22 MR. DICKSON: Apart from the ones that go east!

23 MR. SINCLAIR: Now we know where to look for
24 them.

25 MR. DICKSON: Q. Mr. Stenason, in your
26 memorandum you have indicated that this grain door cost
27 you got from the direct study of the accounts of the
28 company?

29 A. Yes, we have in our records the expense
30 resulting from grain doors during the three years 1956,



1 1957 and 1958.

2 Q. And you went to the records and turned
3 up this account and this total \$768,000.00?

4 A. No. These grain doors are used in grain
5 traffic other than statutory and related grain. What
6 we did was to take the total in dollars for the grain
7 years 1956, 1957 and 1958, and add them up and divide
8 by the total number of cars loaded requiring grain doors.
9 That would include some cars loaded in eastern Canada
10 and some domestic grain in western Canada. We got from
11 that a unit cost car loaded of grain doors expense and
12 applied that unit cost to the cars loaded of the study
13 traffic.

14 Q. On the following page there is an item
15 "Train Other Supplies" and there is an increase of 250,000.00,
16 and your explanatory note reads: "Restated to reflect
17 the heavy proportion of traffic which is grain in
18 Western Region, and the lower proportion of passenger
19 to total in West than on the System." What is meant
20 by that note?

21 A. Well, account 402, which is "Train Other
22 Supply", has in it a great many items. These were
23 allocated under the same procedure initially and in the
24 revision, which was to take the cost of lubrication against
25 total car miles to develop a unit cost which was multiplied
26 by the car miles grain and to tax on all the Train Other
27 Supplies - which cover fuses, flares and so forth - and
28 to divide that between the train miles, freight and
29 passenger.

30 Now, when we came to our revisions we found



1 that we had the actual expenses in the prairies and
2 Pacific regions, so that, again, we applied the same
3 pro-ration procedure to the dollars for the prairies
4 and Pacific region that we had applied to the System
5 as reflecting the greater weighting of freight traffic
6 in the west.

7 Q. This 17.6 miles in item 20 - mileage -
8 is it branch line you are referring to there?

9 A. Yes; the Stirling sub-division. I will
10 get the reference here.

11 MR. SINCLAIR: It is southern Alberta.

12 That is all you wanted, isn't it, Mr. Dickson?

13 MR. DICKSON: That is all I wanted.

14 MR. STENASON: This is part of the Stirling
15 sub-division only. It was required in order to provide
16 us now with other lines which were not solely related;
17 but the rest of the Stirling sub-division was solely-
18 related.

19 Q. Yesterday, Mr. Stenason, you had a fairly
20 lengthy discussion with my friend, Mr. Mauro, on the
21 matter of switching at various points between Winnipeg
22 and Fort William?

23 A. Yes.

24 Q. I haven't any intention of going over
25 that again with you, but there is one statement which
26 you made which I wonder if you would explain. You
27 were asked a question on page 11699 of volume 66 of
28 the transcript...

29 A. Yes, I have it.

30 Q. ... "Q. Why would you change cars from



1 one train to another if tonnage rating is the same
2 all the way from Winnipeg to Fort William?" and
3 your answer was: "Because this is the most economical
4 way of handling the traffic. There are not solid
5 grain trains."

6 What do you mean by "the most economic way
7 of handling the traffic"?

8 A. When this discussion took place I was
9 thinking in terms of tonnage rating on steam power.
10 There is a change in the tonnage rating for steam power
11 between Kenora and Ignace. That was the factor that
12 gave rise to this.

13 When we did our additional yard studies we
14 measured all of the work which was done to through
15 cars or through trains at Kenora and we found that in
16 addition to switching work on pulling bad order cars
17 from the trains and changing the cabooses there was
18 also taking cars of grain, in some cases out of a
19 train and putting them on storage track. There was
20 also grain moving on way freight trains from the Lac du
21 Bonnet sub-division, which was put into our through
22 train at Kenora.

23 Q. Would that be a through train...

24 A. The way train would operate only to
25 Kenora; the through train would start at Winnipeg. She
26 might have picked up traffic at Kenora. This happens
27 during the year when there is congestion at Fort William.
28 It tends to back up through the yard to Winnipeg. By
29 "congestion" I mean elevator congestion.

30 Q. To what extent is the despatcher motivated



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Stenason, cr-ex.
(Dickson)

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1 by the desire to move more rapidly a higher rate of
2 traffic eastward?

(Page 11949 follows)



1 A. I am not a dispatcher, but I will do
2 my best to try to answer the question. Canadian
3 Pacific has two types of through trains. It has simple
4 trains and it has extra trains. Grain moves on both
5 of these types of trains. Now, between Winnipeg and
6 Fort William when the grain movement is particularly
7 heavy, just around the opening of navigation, and for
8 about two or three months during the summer, there is
9 enough volume of grain in order to make up tonnage
10 extra trains. The rest of the year between Winnipeg
11 and Fort William a greater proportion of grain moves
12 on the through simple trains; that is, a train which
13 may originate in Winnipeg and may be operated right
14 through to Montreal or Toronto, and the grain would be
15 taken off the train at Fort William and other traffic
16 may be added.

17 Q. But would the use of the phrase "grain
18 for ballast" be appropriate expression for that?

19 A. No, grain requires a good deal of service
20 at certain times. Special grades may be required for
21 a particular elevator or a particular mill. The grain is
22 moved under orders from the Canadian Wheat Board which
23 may require the grain at one place at a time.

24 Q. Apart from those special order cars which
25 you say move rapidly -- leaving those aside -- what would
26 be rate of movement of a grain train, for a car of grain,
27 compared with the rate of movement for a car of some
28 other commodity?

29 A. I think it would be quite similar. I
30 have some figures in my working papers which would permit



1 me to develop it.

2 Q. Could you give us some comparative
3 figures on transit time, say, for grain compared with
4 other commodities for a similar length of haul?

5 A. This is on the main line?

6 Q. Yes.

7 A. Once grain is on the main line I would
8 think there would be very little difference between the
9 length of time of the trains.

10 Q. What would be the normal time of transit
11 of a car loaded at, say, Weyburn for delivery at Fort
12 William?

13 A. Our estimate at the moment is about four
14 days -- four or five days.

15 COMMISSIONER BALCH: May I ask a question:
16 do you pick up grain at Kenora?

17 MR. STENASON: Yes, sir; it comes in on a
18 way freight from Lac Du Bonnet subdivision, and there
19 is some milling traffic.

20 COMMISSIONER BALCH: Take a train going from Winni-
21 peg to Fort William and the despatcher has been notified
22 there are so many cars at Kenora to be picked up; you
23 would leave with less tonnage from Winnipeg so he could
24 pick them up, to fill out the tonnage?

25 MR. STENASON: Yes, that could be or there
26 may be tonnage taken off the train at Kenora.

27 COMMISSIONER BALCH: Another thing, I under-
28 stand that you have simple trains running through to
29 Vancouver?

30 MR. STENASON: Yes, sir.



1 COMMISSIONER BALCH: They, naturally, would
2 not have as much tonnage on them coming over the
3 mountains as they would east of Winnipeg?

4 MR. STENASON: That is correct.

5 COMMISSIONER BALCH: I understand, again,
6 that you fill out at Winnipeg with grain -- fill out
7 the simple train with grain?

8 MR. STENASON: Yes, and particularly during
9 certain times of the year.

10 COMMISSIONER BALCH: I think those things
11 should be taken into consideration in figuring out the
12 tonnage.

13 MR. STENASON: Yes. As a matter of fact,
14 we have determined the weight of simple trains from
15 Winnipeg to Fort William and the volume of grain moving
16 on simple trains and extra trains during different
17 periods of the year. That is basic to this test on the
18 weighted average weight of grain trains that I referred
19 to yesterday.

20 MR. DICKSON: Q. Did I understand the
21 answer to the question as to the average time for a car
22 of grain moving from Winnipeg to Fort William to be
23 four days?

24 A. Well, this was an initial -- well, we
25 will have to get that for you.

26 Q. Would two weeks be closer, or would you
27 know?

28 A. Off-hand, I don't know.

29 Q. I wonder if you could let me have that
30 figure, also the most rapid movement that you would normally



1 expect, and the most lengthy time that might elapse in
2 the movement?

3 MR. SINCLAIR: I wonder if my learned friend
4 wants us to show how we are going to weight out the
5 backed up cars caused by congestion, and the way the
6 grain trade use these railway cars for storage purposes?
7 I wonder how we are going to weight that out. We have,
8 at the request of the Commission, under-way the filing
9 of the entire record in the demerage case including the
10 appeal, and a lot of this information is in that.

11 MR. DICKSON: I thought that demurrage case
12 was dead and buried, and I understood the Commission
13 took that view.

14 MR. SINCLAIR: I don't think the Commission
15 take that view, and I am quite hopeful they will recommend
16 certain changes after the submissions and after they
17 have reviewed that record which will prevent such injust-
18 ice as happened in that case happening again.

19 MR. DICKSON: May I suggest that if you have
20 such thought in mind there are many practices which have
21 occurred since that case occurred, and which should be
22 taken into account.

23 MR. SINCLAIR: There certainly are many factors
24 since that case.

25 MR. DICKSON: Q. Just one more question
26 on this point, Mr. Stenason: assuming there are 100 cars
27 going east from Winnipeg of which 90 are grain cars
28 destined for Fort William and ten are cars of other
29 commodities going to Kenora, what happens when that train
30 reaches Kenora?



1 A. The ten cars to Kenora would be taken
2 off the train and they would be local cars to Kenora
3 and would have been counted as local cars to Kenora
4 in our new switching studies, and if there was volume
5 in Kenora there would have been the tonnage equivalent
6 of those ten cars put back on the train at Kenora.

7 Q. Would any cost be incurred in your cost
8 study against grain by reason of that manoeuvre at the
9 City of Kenora?

10 A. No sir, because in our new yard studies
11 we have split the classification time between through
12 cars and local cars.

13 Q. You are, I think, preparing at the request
14 of Mr. Commissioner Balch the percentage of the number
15 of solid trains of grain going Winnipeg - Lakehead out
16 of the total movement; is that correct?

17 A. My understanding was that we were preparing
18 the ratio of grain moving in extra trains at certain
19 periods of the year and the ratio of grain moving in simple
20 trains at certain periods of the year. The extra
21 trains on this train-run are quite largely but not com-
22 pletely grain trains.

23 Q. Would it be difficult to come up with a
24 percentage of grain-only trains out of the whole movement
25 of grain to the Lakehead?

26 A. I think I can tell you now the percentage
27 would be zero -- or, close to 1 per cent. There is
28 usually something on a train other than grain.

29 Q. So, only about 1 per cent of your trains ---

30 A. Again, that was just a guess, but it wouldn't



1 be a very high percentage of the total traffic -- the
2 movement of trains which contained nothing but grain.

3 Q. Would that same condition apply to the
4 Canadian National?

5 A. I don't know.

6 Q. Mr. Stenason, in response to a question
7 by learned friend Mr. Mauro yesterday at page 11719 of
8 the transcript, volume 66, you indicated that the charge
9 against the grain movement for clerks and attendants
10 was \$860,000.00; applying your percentage, that was
11 the end result as far as clerks and attendants are
12 concerned, some \$860,000?

13 A. Yes; I haven't checked these figures.

14 Q. Well, assuming they are correct?

15 A. Yes.

16 Q. And you indicated later that, in your
17 opinion, you may have understated that figure?

18 A. Yes.

19 Q. On pages 11728 and 11729 you said,
20 in response to another question:

21 "A. I would think the clerical expense applied
22 on an over all ratio, and has been done here, would
23 tend to understate the amount chargeable to grain
24 because of the degree of clerical work involved in
25 grain."

26 Will you expand on that phrase "because of
27 the amount of clerical work performed on grain", having
28 regard to the railways' end of it?

29 A. Yes, and having regard to the non-station
30 expense aspects of the clerical work, which is what is



1 in the account. I was thinking here of the large
2 amount primarily of the auditing of freight receipts
3 of Canadian Pacific or auditing of freight and station
4 accounts as it is now called, the auditing procedures
5 which are required, the milling in transit charges on
6 grain which require auditing of the cancellation of way
7 bills.

8 Q. Are these not facts relating to the
9 expense which the railway may incur in dealing with
10 grain, that the railway deals seldom with the individual
11 farmer -- the number of consigned cars is practically
12 negligible?

13 A. Yes, the railway does not deal often
14 with the individual farmer.

15 Q. The accounting is done with the farmer
16 and large staffs handled by the grain handling organiza-
17 tions?

18 A. In so far as the elevators are concerned.

19 Q. Yes, and that the railways have no
20 problem of collections as far as collecting for the
21 services rendered on the movement of this particular
22 commodity?

23 A. I don't think this really has anything
24 to do with the type of clerical expenses which were in-
25 cluded in this account, which are such things as auditing
26 of freight and station accounts. I was thinking of
27 the transportation department where, because of the
28 ordering of the freight cars special records must be
29 kept; it is necessary to anticipate the car requirements
30 for grain and some of the problems involved in the dis-



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Stenason, cr-ex.
(Dickson)

11955

1 patching of cars for grain loading are very real and
2 very large because of the policy of moving grain from
3 certain areas under the quota.

4 Q. How many people have you got in your
5 Vancouver office dealing with grain accounting?

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16 (Page 11959 follows)
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2 A. I don't know, Mr. Dickson.

3 Q. Would you know how many in Winnipeg?

4 A. Well, the auditing procedures here are
5 done in Montreal, and we have a very, very large office
6 there. The number of people involved in grain accounting
7 I don't know, but I would think, because of the complexity
8 of the milling in transit calculations and auditing
9 generally, that this would be considerably greater than
10 the normal run of freight traffic.

11 Q. But you are only dealing with perhaps
12 30 or 40 companies?

13 A. Well, as far as milling in transit is
14 concerned, we are dealing with each individual waybill.

15 Q. How many shippers do you deal with?

16 A. There are not many shippers, but each
17 waybill has to be dealt with as far as milling in transit
18 is concerned.

19 Q. Now, on one or two solely related lines
20 -- you have referred to that, and I don't want to be
21 repetitious. But am I right in this, that the cost
22 to the grain movement as far as solely related lines
23 are concerned fluctuates with the revenue on products
24 other than grain, commodities?

25 A. The amount charged in the cost study for
26 solely related lines results from the size related costs
27 less a net revenue credit for non-grain traffic moving
28 over the lines. So if there is variation in the
29 revenues moving over the lines, then there would be a
30 difference in the size related cost.

Q. Assuming in 1958 and 1959, and assuming



1
2 the exact same volume of grain moving, and assuming a
3 reduction of \$100,000 in revenue from non-grain, then
4 as far as your cost study is concerned, that reduction
5 of \$100,000 from non-grain revenue would have added
6 \$50,000 to the cost of moving grain?

7 A. No, it would have added \$50,000 less the
8 variable expense on the branch line of the traffic.

9 Q. Which would be less?

10 A. Which would be less than \$50,000.

11 Q. You would have less expense because of
12 the lesser movement of non-grain?

13 A. Yes, you are perfectly correct.

14 Q. Therefore it would cost grain more than
15 \$50,000?

16 A. It would cost grain the amount of the
17 reduction in the net revenue credit.

18 Q. Plus any change in the variable expense?

19 A. No. What I was referring to earlier was
20 your use of the \$100,000 and your use of the \$50,000.

21 Q. You credit the branch line with 50 per
22 cent of the revenue?

23 A. Yes. You see, if we are talking about a
24 \$100,000 change in revenue, we would be talking about
25 something less than a \$50,000 change in net revenue
26 credit.

27 Q. And that would be charged against the
28 grain irrespective of no change in the grain movement?

29 A. Well, this was a three-year test, based
30 on traffic moving over it during these three years.

Q. Now, turning to Exhibit 132 again, on the



1
2 final page, page 7, you have increased the grain, the
3 statutory grain, by \$2,300,000 in one fell swoop,
4 and in the explanation you say that a new procedure was
5 applied. Now, I assume that when you prepared your
6 original memorandum you had introduced these various
7 refinements that you speak of in the introduction to the
8 memorandum.

9 A. Well, we had certainly tried to introduce
10 the various refinements that we knew of at the time.
11 There has been a good deal of discussion and critical
12 appraisal of the study since that time. Now, the
13 basic problem here was that many of our regression
14 equations had been based on 27 divisions and had
15 excluded the terminal divisions. Now, a constant
16 is developed in such a regression equation which we had
17 applied to the system by multiplying by the total number
18 of divisions on the system, including Canadian Pacific
19 electric lines, and by dividing by the total number of
20 divisions on which the regression is based. This
21 procedure did not fit well the constant expenses in
22 Canadian Pacific electric lines, which is a very small
23 operation, and in the terminal divisions that was par-
24 ticularly true of such items as station expenses where
25 we have a good deal of supervisory type station expense
26 located in the terminal division. This latter procedure
27 is the procedure which Canadian Pacific followed, of
28 balancing controlled system expenses, since their precis
29 was filed.

30 Q. You followed one procedure which gave you
a result, and by selecting a different procedure you got



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a difference of some two and a quarter million dollars.

A. I would say this was the more correct procedure to use.

Q. Do I conclude that in a study of this nature there are various procedures one can adopt with full confidence, you have alternative procedures, and the results which you can get from the different procedures may be very different?

A. I would hate to generalize. Treatment of the constant is quite a different matter to the problem of treatment of other categories of expense.

Q. You used one procedure, and in that use of the procedure you came up with another figure?

A. Yes.

Q. And adopting another procedure you came up with two and a quarter million dollars difference in that one item?

A. Yes.

Q. Are you satisfied now you are on the right procedure?

A. Yes. The difference was 1.55 per cent overall.

Q. The difference was 25 per cent on this particular item. Your increase was from \$9,812,923 to \$12,129,843, an increase of \$2,316,920, which I would suggest to you is about 25 per cent.

A. Yes, that would be. I was thinking of the total change, which was 1.55 per cent overall.

Q. Are you suggesting two wrongs make a right?

A. No.



1
2 Q. Now, Mr. Stenason, one or two more questions.

3 Nowhere in this study and nowhere under way at this
4 time, I take it, is there any study dealing with the
5 profitability of movement in western Canada of grain
6 moving at domestic rates?

7 A. That is right, sir.

8 Q. And you are asking this Commission to
9 give Canadian Pacific in some form or other a subsidy
10 related to the movement of grain and grain products.
11 You would make it clear that this subsidy is for the
12 benefit of the farmer, but you are not giving the western
13 farmer any recognition for moving his grain at domestic
14 rates; is that right?

15 MR. SINCLAIR: Mr. Chairman, our position is
16 that these rates have been before the Board of Transport
17 Commissioners, as I think the Chairman, at least, knows,
18 and some others also, and were subject to long hearings,
19 and, as was indicated, I think, during the evidence of
20 our traffic officers, there was one matter still out-
21 standing that had arisen out of equalization, but, subject
22 to that, the Board has found it to be a just and reason-
23 able level for the movement of this traffic, that is
24 domestic grain in western Canada. Mr. Dickson has
25 asked us to produce the figure of the percentage of
26 domestic grain to total grain in western Canada, which
27 we are going to do.

28 THE CHAIRMAN: As a matter of fact, we under-
29 stand that the domestic and statutory are separated.

30 MR. SINCLAIR: The Chairman said to me that the
domestic and statutory are separated. This is only



1
2 statutory, yes.

3 MR. DICKSON: In what sense do you mean
4 separated?

5 MR. SINCLAIR: There is no cost for the move-
6 ment of the domestic grain in here or any reference.

7 MR. DICKSON: Q. My question was if there
8 was any study of domestic rates, and the answer was no.

9 Finally, on that point, Mr. Stenason, from
10 your study of the cost of the movement of grain at
11 statutory rates, would you say that the moving of grain
12 at domestic rates looked after variable costs, constant
13 costs plus something for that movement.

14 A. I understand that the rate level is
15 in the area of two cents per ton mile, and I would think
16 on the basis of this study that the variable cost would
17 be covered.

18 Q. Constant costs?

19 A. Well, I would think so.

20 Q. And then another 100 per cent?

21 A. I really don't know. You have to get
22 into the switching involved.

23 Q. You are satisfied it is a profitable
24 movement?

25 A. I am satisfied it covers its costs at
26 2 cents a ton mile.

27 Q. Now, to the extent, Mr. Stenason, that
28 there have been efficiencies and economies achieved by
29 Canadian Pacific in the last year and a half, for
30 example, in the change of the organizational setup and
other economies referred to, that would reduce the cost



1
2 at present in the movement of statutory grain?

3 A. I wouldn't think so. You see, you have
4 two factors working: Increase efficiency plus increased
5 wage rates, and the extent to which the two may be
6 balanced off, I wouldn't know. I would suspect that the
7 increase in wage rates would outrun any improvement in
8 productivity. I really don't know.

9 Q. Would that include the improvement or
10 economies resulting from dieselization?

11 A. Yes.

12 Q. The economy resulting from taking the
13 firemen off the yard on freight engines?

14 A. Yes, such economies would be included.

15 Q. But your statement is that the increased
16 wages would have more than offset those economies?

17 A. I don't know whether they would have
18 more than or not, but increased wage levels have to be
19 considered along with the economies.

20 MR. DICKSON: Thank you very much,
21 Mr. Stenason.

22 THE CHAIRMAN: We will adjourn now until
23 9.30 tomorrow morning.

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30 ---Adjournment.

ROYAL COMMISSION

ON

TRANSPORTATION

HEARINGS

HELD AT

OTTAWA

VOLUME No.:

DATE:

12 MAY 1960

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I N D E X

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(re Dates of Sitzings)

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NO EXHIBITS IN THIS VOLUME



ROYAL COMMISSION ON TRANSPORTATION

Proceedings of hearings held
in the Court Room, Board of
Transport Commissioners Offices,
Ottawa, Ontario, on the 12th
day of May, 1960.

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Ottawa, Ontario,
Thursday,
May 12, 1960.

---On commencing at 9.30 a.m.

THE CHAIRMAN: Order, please.

Mr. Blair, I understand you are taking over
for Mr. Brazier.

MR. BLAIR: Yes, sir.

THE CHAIRMAN: Will you proceed, please.

MR. BLAIR: Mr. Chairman, Mr. Brazier regrets
that other commitments made it necessary for him to leave
the city over night.

THE CHAIRMAN: We understand.

CROSS-EXAMINATION BY MR. BLAIR:

Q. Mr. Stenason, I take it from your general
background and experience that you are knowledgeable not
only on the subject of cost but also on the subjects of
rates in general and rate-making principles.

A. Well, I would say I have a knowledge of the
economics of rate-making, but I am certainly not an
expert on rates by any means; it is a far different thing.

THE CHAIRMAN: You leave that to Mr. Edwards.

THE WITNESS: Yes. That is much more compli-
cated than economics.

MR. BLAIR: Q. Your field of knowledge and
interest extends beyond the narrow range of cost as such?

A. Yes, that is correct.

Q. Mr. Stenason, I refer you to the book,
which must be well known to you by this time, entitled



1
2 "The Economics of Competition in the Transportation
3 Industries". At page 245 of this book there occurs the
4 following quotation under the head "Explicit Policy
5 Recommendations Rate Structures":

6 "Reform of existing transportation establish-
7 ment should begin with a reconsideration of the
8 railroad tariff structure, which needs, if preceding
9 evidence is correct, a complete re-evaluation and
10 revision".

11 That is the end of the quotation. I suppose
12 I should ask you initially whether you yourself agree
13 with this particular assertion or disagree with it?

14 A. Well, I would like to put the assertion
15 in the context of the book as a whole and of this chapter.
16 This book, although it grew out of studies which had
17 been sponsored by Canadian Pacific, itself was directed
18 at the situation in the United States, and is written
19 for the United States market and is written having in
20 mind problems in the United States transportation in-
21 dustry. Now, there is a significant difference between
22 environment in the United States and in Canada. I have
23 particularly in mind there the flexibility of adjustment
24 in so far as rates are concerned by the railways to
25 competition. In the United States the restrictions
26 are much more severe than they are in Canada; there are
27 no agreed charges, and so forth. This book, as a whole,
28 is concerned with the resource misallocation which I
29 feel has resulted in the transportation industry in the
30 United States as a result of regulation which has not
permitted to the low cost carriers in each market to



1
2 properly reflect their costs in their pricing. Now,
3 that is the general context of the book, and this was
4 written having in mind the relatively rigid situation
5 in the United States in so far as railway ability to
6 adapt to competition is concerned.

7 Q. Then with respect to your answer, would
8 you say that some type of resource misallocation may
9 have occurred or may not have occurred in Canada as a
10 result of the railway rate structure?

11 A. I would say that the situation is
12 significantly different in Canada because of competi-
13 tive rates and agreed charges, much greater flexibility
14 on the part of the railways in adjusting to competition.
15 In the United States, for example, there is such a
16 thing as a suspension proceeding which can tie up rates
17 for months and months and slows down the ability of
18 railway traffic management to adjust to competition.
19 So there is a different situation in the two countries.

20 Q. And are you suggesting that railway
21 management in this country is able to and does, in fact,
22 adjust itself more rapidly to the competitive situation
23 than railway management in the United States?

24 A. Yes, very, very definitely.

25 Q. Mr. Stenason, I don't want to be in the
26 position of picking out odd bits and pieces of this
27 book and quoting from it, so if I in any of this book
28 pick something out which is out of context, I hope you
29 will say so. But I will turn now to page 243 of this
30 book and to the first full paragraph on that page, the
third sentence, reading as follows:



1
2 "Value of service rate-making, while
3 possessing many attractive features for industries
4 with high fixed costs and substantial fluctuations
5 in demand over time, has on the basis of the
6 historical evidence failed miserably as an
7 allocator of transportation resources".
8

9 Now, I think I should ask you first: Do you or
10 do you not agree with that proposition?

11 A. Yes, I agree with this proposition in the
12 United States. /I would have agreed with this proposition
13 in Canada until the enactment of the agreed charge legis-
14 lation. I would not agree with its application in Canada
15 under present conditions. But I would certainly agree
16 with its application in the United States because of its
17 rigidities.

18 Q. Mr. Stenason, in general, would you say
19 that value of service is an important feature in rate-
20 making in Canada?

21 A. I would say yes; I would say that it was
22 a significant feature in rate-making in Canada.

23 Q. And, historically, it has been significant?

24 A. Yes.

25 Q. During all the time that the railways have
26 been in operation, so far as you know?

27 A. Yes, it has been significant pretty well
28 during the history of railway development in Canada.

29 Q. So if this statement that value of
30 service has failed miserably as an allocator of



1
2 transportation resource is true of the United States,
3 it must peradventure be true of Canada?

4 A. No, I would disagree with that, for the
5 reasons I have indicated. You see, value of service
6 pricing in the United States is still the major rate-
7 making principle. The rigidities which exist in the
8 United States in preventing the railways ;there from
9 adjusting to competition are much more severe than is
10 the case in Canada, and through competitive rates and
11 agreed charges there is in Canada considerable flexibil-
12 ity in adjusting to competition and thus preventing the
13 resource misallocation which we are dealing with here.
14 That resource misallocation is where one form of trans-
15 portation performs a job where another form of transport-
16 ation has lower costs.

17 Q. What you are suggesting is if value of
18 service is a bad principle, it is mitigated to some
19 extent by recent developments in Canada?

20 A. I would say that the resource misallocation
21 which can stem from value of service pricing in so far
22 as transportation industries are concerned has been
23 largely removed by the flexibility and competitive rates
24 and agreed charges.

25 Q. Notwithstanding the fundamental assertion
26 of the railway, as I understand it, in other submissions,
27 parts of submissions which they have made, value of
28 service remains the important principle in rate-making?

29 A. It is certainly the important principle
30 of rate-making, and I think a valid one where it is
appropriate to apply it. Value of service pricing has



1
2 a tendency, where it can be applied, of maximizing the
3 total value of traffic moving on the railway and minim-
4 izing the constant cost of the traffic. It means the
5 so-called transportation bill of the economy as a whole
6 is lower than it would be without value of service
7 pricing where it is applicable. If you put value of
8 service pricing where applicable together with flexibility,
9 I think that you achieve something which is very close to
10 an optimum in transportation, in so far as you minimize
11 unit costs and at the same time you prevent one form of
12 transport from performing service where its costs are
13 higher than another.

14 THE CHAIRMAN: You cannot eliminate value of
15 service from rate-making.

16 THE WITNESS: Yes, sir, that is correct. I
17 think it would increase transportation costs in the
18 economy as a whole.

19 THE CHAIRMAN: It may be narrowed, but it is
20 still there.

21 THE WITNESS: Yes.

22 COMMISSIONER MANN: In all fairness to the
23 authors of this book, that is inherent in the book, is
24 it not?

25 THE WITNESS: Yes. You have to look for it
26 at different places.

27 MR. BLAIR: Q. I now refer to page 242,
28 to the last four lines of that page, which deals with one
29 of the solutions to the problems of rate-making, and
30 says that uniform market of marginal costs sufficient to
cover full costs is the procedure that may be followed.



1
2 This is a system which I understand if referred to as
3 average cost pricing and is arrived at by a uniform market
4 of marginal cost on variable cost?

5 A. Not of marginal cost and variable cost.
6 Average cost pricing is simply full cost pricing as we
7 have applied it in the grain study; it is the variable
8 cost, plus a proportion of the constant cost.

9 Q. Mr. Stenason, I regret I wasn't fully
10 listening to you when you gave your answer. You say that
11 this is the system which you employed in making the grain
12 study?

13 A. The procedure used in arriving at the cost
14 of grain was to take the variable cost plus an apportion-
15 ment of the constant costs. I think this is quite
16 appropriate where you have a very large volume of traffic,
17 large absolutely and large in proportion to the total
18 volume moving over the railway.

19 Q. I began by reading from page 245, the
20 conclusion, as it were, of the authors that the railway
21 rate structure needs re-evaluation and revision. I
22 wondered whether the cost study which the railways have
23 prepared with regard to grain rates may be regarded as
24 a significant step leading to a re-evaluation and revision
25 of the rate structure?

26 A. Well, certainly costs are important in the
27 rate structure; the variable cost is the floor in pricing,
28 and cost is not new. We have, I think, gradually over
29 the last ten or fifteen years in Canada made a number of
30 significant steps forward in rate-finding, and I would
like to think that some of these steps forward are
found in the study.

(Page 11976 follows)



1
2 Q. Is this the first step which might lead
3 to elaborate cost studies for other types of traffic?

4 A. We have been performing cost studies
5 at Canadian Pacific for ten or fifteen years and they
6 are more or less elaborate depending upon a number
7 of considerations - the magnitude of the traffic,
8 the closeness of the rates to variable costs and
9 so forth.

10 Q. So that you already have done cost
11 studies on a considerable number of different types
12 of traffic?

13 A. Yes, both railways have a fairly sig-
14 nificant staff which are turning out cost studies on
15 a daily basis for our respective traffic departments.

16 Q. Have you for example subjected lumber
17 to a cost study of this type?

18 A. I believe we have costed lumber.

19 Q. I suppose you would agree with me
20 that lumber is a significant part of the total freight
21 traffic of the railways?

22 A. Yes. It is not as significant as
23 grain. I do not know what the proportions of lumber
24 to total freight traffic are.

25 Q. Mr. Stenason, I would like to direct
26 your attention to Page 22 of the précis entitled
27 "Memorandum in respect of Results of Cost Study", and
28 to the second paragraph on that page which deals
29 with passenger traffic. Its notation is as follows:

30 "The railway position is that the problem



1
2 of matching revenue with the variable
3 expense of operating passenger trains
4 is a managerial one. Passenger traffic
5 is incremental traffic, therefore the
6 passenger deficit has not been taken into
7 account in considering the total cost of
8 moving the study traffic."

9 I would also like you to consider a passage
10 from the judgment of the Board of Transport Comm-
11 issioners dated November 17, 1958 in the so-called
12 seventeen per cent case. . This is at page 18
13 under the caption "Passenger Services", and again I
14 would like to read the extract in full:

15 "In its twenty-one per cent judgment of
16 March 30th, 1948 the Board stated that
17 railway passenger services and freight
18 services are inter-related, and revenue
19 losses or deficits from passenger services
20 on the one hand must necessarily be com-
21 pensated by earnings from freight on the
22 other if railways are to continue to operate
23 and furnish required services, and the
24 Board disagree with the submissions that
25 it could authorize no increase in freight
26 rates if such increase to some degree were
27 necessary to correct deficiencies in
28 aggregate railway earnings growing out
29 of inability of the passenger service to meet
30 its full share of the revenue burden. The



1
2 Board confirms this previous view."

3 I take it there is no disagreement that the
4 deficits which are incurred on the passenger service
5 have to be made up out of the freight traffic?

6 A. Yes that is correct.

7 Q. Historically this position has obtained
8 since 1948, and possibly long before that time?

9 A. That is what I would read from this
10 judgment.

11 Q. So that since 1948 management of the
12 railways have had within their discretion and auth-
13 orization to meet, in the words of the submission,
14 "The problem of matching revenue with the variable
15 expense of operating passenger trains"?

16 A. This is a problem which management always
17 has.

18 Q. But in that time it has always been
19 necessary to make up the passenger deficit from the
20 freight traffic?

21 A. During this period - at least during the
22 latter part of this period - there has been a passenger
23 deficit. I would like to point out that there will be
24 a complete story of the passenger deficit, including
25 an estimate of savings which have arisen as a result
26 of management action in recent years, forthcoming.

27 Q. This will be tabled in due time?

28 A. Yes, I believe so.

29 Q. The passenger deficit is obviously being
30 paid for by the freight shippers. Would I be correct



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in suggesting that in actual fact it is being paid by a group of freight shippers rather than by freight shippers as a whole?

A. No, I do not think so. I think we could say that it is being borne by freight shippers as a whole. I know what you are getting at.

Q. We have had reference throughout to the captive traffic. Would you not say that the so-called captive traffic will be making a much greater proportion of the contribution to the passenger deficits than other forms of traffic?

A. No, I would not agree. In the first place I do not know exactly what "captive traffic" is. In the second place, the particular categories of traffic or shippers which are contributing to the passenger deficit depend not upon whether it is captive but rather on the relationship of revenues and expenses or rates and costs.

Q. I do not think you and I should engage in an argument as to what is or is not captive traffic. Let us use the phrase loosely and leave it at that.

MR. SINCLAIR: Maybe counsel would help the witness and define what he meant when he used the phrase in his questions.

THE CHAIRMAN: I imagine one may include lumber in captive traffic.

MR. SINCLAIR: Between the west and the east? Lumber traffic? The Chairman wants to know if



1
2 you include lumber traffic. Between the east and
3 west, is my question, Ontario, Quebec and the Maritimes,
4 from British Columbia for instance.

5 MR. BLAIR: The type of traffic to which
6 I referred when I used the word "captive traffic"
7 is traffic for which there is no other reasonable
8 means of transportation except by rail.

9 A. But that generally means that it is
10 captive because the revenue per ton mile is significantly
11 less than the truck cost, if you want to adopt that
12 definition, which would mean that the revenue per
13 ton mile would be less.

14 THE CHAIRMAN: Or because of the very nature
15 of the traffic -- bulk traffic?

16 A. Yes, that could well be.

17 MR. BLAIR: I asked for your comment on my
18 suggestion that this type of traffic would make prop-
19 ortionately a greater contribution to the deficit
20 arising from the passenger operation than other types
21 of traffic.

22 A. Of course I have no way of knowing, but
23 I would doubt it because of this rate factor that
24 I just mentioned. After all, if the captive traffic is
25 captive because the rates are such that other forms
26 of transportation do not compete for it, then that
27 must mean that the rates are less than rates on traffic
28 which is not captive or which is competitive. But
29 this is a theoretical argument and not based on fact.

30 THE CHAIRMAN: Really you are talking about



1
2 two types of captive traffic; one type of traffic
3 that is captive because of rates and the other that
4 is captive because of kind?

5 A. That could well be - for example, very
6 long haul traffic simply could not be handled by
7 highway. But the really impressive thing about
8 transportation in Canada during the last few years
9 has been the extent to which truck competition has
10 broadened, for example, the movement of bulk traffic.
11 There certainly is traffic which is captive because
12 of its nature.

13 THE CHAIRMAN: In both senses?

14 A. Yes.

15 MR. BLAIR: Mr. Stenason, in dealing with
16 the passenger deficit does the railway allocate overhead,
17 say, in the same way as was done in preparing the
18 cost study on grain?

19 A. The answer to that turns upon what you
20 mean by "overhead". Certain overheads in the railway
21 are traceable to direct expenses; they are variable
22 with direct expenses, for example, the overhead
23 of road maintenance or the overhead of equipment
24 or the overhead of transportation. We have ascertained
25 through a regression analysis that these items of
26 overhead are to some extent variable with road maintenance
27 or transportation expenses, and therefore some of
28 those overhead expenses can be traced to passenger
29 services. Other categories which we have treated in
30 our cost study as constant cost have been put against



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2 freight services.

3 Q. In other words, in tracing overhead
4 expenses to passenger services, you try to make a
5 direct relationship between the item of expense and
6 the passenger service and you do not allocate certain
7 expenses basic to the operation of the service.

8 A. That is correct.

9 Q. So that to that extent there is a
10 difference in the method of handling these overhead
11 costs and in passenger services as opposed, say, to the
12 grain study.

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14 Page 11986 follows.
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1 A. Yes, the so-called constant costs --
2 well, the so-called constant costs have always been
3 placed against freight service. I didn't catch the
4 latter part of your question. Did you say, was there
5 a difference between the treatment?

6 Q. Yes.

7 A. No, there is no difference between treat-
8 ment -- oh, there is difference between treatment of the
9 two types of overhead expenses, but there has been no
10 difference in the treatment of the passenger overhead
11 expenses as a whole, over time.

12 Q. In a sense this is because the freight
13 service is looked upon as being the basic operation
14 of the railway, and the passenger service is something
15 extra?

16 A. Yes, that is correct.

17 Q. Something incremental?

18 A. Yes, something incremental.

19 Q. Mr. Stenason, I don't want to take you
20 into the realm of opinion, but I would judge that this
21 passenger deficit must be viewed as being somewhat in-
22 tractable and beyond the railway's power to control,
23 because it has persisted for so long?

24 A. No, very substantial steps have been
25 taken in so far as the passenger deficit is concerned
26 in recent years by Canadian Pacific, and I would certainly
27 not say it intractable. It is an important problem
28 area, but the problem is not intractable.

29 Q. Would you go so far as to say that this
30 passenger deficit is or is not likely to be a permanent



1 feature of the railway's financial picture?

2 A. Well, I would certainly hope not. I
3 don't have a glass, though, so that I could look into the
4 future.

5 Q. If the conclusion was reached by this
6 Commission or by any other responsible authority that
7 the passenger deficit could not be dealt with by ordinary
8 managerial means, would you feel that some other form
9 of solution might be desirable to lift the burden of
10 this deficit from freight shippers?

11 A. I am afraid I am quite a classical econom-
12 ist in this field. I would hate to see anything which
13 prevented the railways from adjusting to changes in
14 market conditions in any service that is the basis of
15 the problem in the passenger service: you need a lot of
16 free enterprise flexibility in order to deal with problems.

17 Q. In other words, notwithstanding the fact
18 that for twelve recorded years before the Board of
19 Transport Commissioners and several Royal Commissions,
20 there has been what might be called an admission of
21 managerial inability to lift this burden from freight
22 shippers, you continue to believe that the best way of
23 dealing with it is to lump the deficit against railway
24 freight shippers?

25 A. Yes, I do, because it is an overall part
26 of the constant cost. We haven't done so in the case of
27 grain, in order to present a conservative treatment of
28 constant cost.

29 Q. I suppose the obvious question here is
30 that you would appear to be treating the passenger deficit



1 somewhat differently now than you treat the deficit
2 which apparently arises from the carriages of grain
3 traffic?

4 A. In what way?

5 Q. In the sense that you do not any longer
6 wish to use the processes of cross-subsidization to
7 cover the grain movements, but you still propose to
8 use these methods to cover the passenger deficit?

9 A. Well, there are significant differences
10 between passenger service and grain. As I said earlier,
11 passenger service is an area in which, as a result of
12 competitive forces and changes in the transportation
13 economics, an adjustment is taking place on the part
14 of the railways to a significantly lower volume of
15 passenger service. In so far as grain is concerned,
16 the movement of grain is one of the backdrops of the
17 Canadian economy and will continue for the foreseeable
18 future. There are no market changes going on here
19 which significantly affect the movement of grain. The
20 cost position of the railways, in so far as the movement
21 of grain is concerned, give it very clear-cut advantages
22 over other forms of transportation. There are many
23 difference between the two situations.

24 THE CHAIRMAN: Would you regard passenger
25 traffic as inherent to rail enterprise -- the right of
26 the citizen to travel as a passenger by train?

27 A. Well, I think I would regard this from
28 a resource allocation point of view, and I would say
29 where it is possible for the railways to operate a
30 profitable passenger service, that those are the areas



1 where other forms of transportation cannot do the job
2 more economically than railways, and therefore I would
3 say that through the working of a market mechanism in
4 transportation that the job of transporting people and
5 the economy as a whole would be best done through per-
6 mitting that form of transportation to operate in that
7 market where it can do the job more economically than
8 some other form of transportation.

9 THE CHAIRMAN: Even to have rail discontinue
10 its entire passenger service?

11 MR. STENASON: There are areas in the railway
12 passenger service where the cost of providing the service
13 by a railway is less than by other forms of transportation,
14 but I do think the market mechanism of passenger service
15 is an extremely important one to perserve.

16 COMMISSIONER MANN: That is predicated on a
17 equality of treatment by the government of all transporta-
18 tion agencies?

19 MR. STENASON: That is predicated on including
20 all of the costs in this equation.

21 MR. BLAIR: Q. Would it be fair to suggest
22 that your submission might well have been amended to say
23 that the problem relating to or arising from passenger
24 traffic is not only a managerial one, but it is a problem
25 which is dumped on the lap of the freight shippers?

26 A. Well, it is part of the burden of the
27 railway which must be covered -- the total costs have
28 to be covered, and the way in which the total costs are
29 covered is through freight service.

30 Q. I now would like to direct your attention



1 to page 6 of your brief and to the very last paragraph
2 on page 6 which says: "A routing pattern for the
3 movement of cars of grain from each station was established
4 by field studies."

5 Could you help us by saying what you meant
6 by a routing pattern?

7 A. A routing patter reflects the lines over
8 which the study traffic moved from the station of origin
9 to the station of destination; that is to say, a car-
10 load of grain might originate on a branch line at a
11 certain station and it would have to move, perhaps,
12 down that branch line onto another branch line and onto
13 the main line, then to Fort William or Vancouver. The
14 routing pattern was to establish the route ordinarily
15 followed -- normally followed by the traffic.

16 Q. So that there are routes for different
17 points of origin and different destinations and different
18 types of commodities?

19 A. I would not say there was a route for
20 different types of commodities. Generally, the operating
21 policy on Canadian Pacific is to get traffic to the main line
22 as expeditiously and economically as possible, because
23 this is where we have our heavy trains operating, and
24 so forth. There would be a difference in the routes of
25 different commodities depending on where they originated
26 or terminated.

27 Q. Dealing with some of the products produced
28 in British Columbia, and taking lumber as an example,
29 are there established routes or routing patterns for
30 the movement of lumber to prairie and eastern markets?



1 A. There would be a normal routing pattern.

2 Of course, that routing pattern may be departed from
3 under special operating considerations, such as washouts
4 or derailments, or anything of that type.

5 Q. I suppose it is possible that in some
6 instances there may be alternate routes or routing
7 patterns?

8 A. Yes, in some cases in the routing analysis
9 we have in the grain study it was ascertained that
10 throughout 1958 approximately 30 per cent of the traffic
11 moved off a particular branch following this route, and
12 70 per cent following another route. This very often
13 depends on the location of the station on the line and
14 other branches which may be adjacent to this particular
15 line.

16 Q. Where you have these alternate routing
17 patterns, and you say 30 per cent might move by one
18 route and 70 per cent by the other, what would you say
19 the criterion was as to whether it moved by one or the
20 other routes?

21 A. When we were costing out the total cost
22 of the commodity, such as it is, we took the total number
23 of cars originated on the sub-division and we took 30
24 per cent on one route and 70 per cent on another route.

25 Q. I take it from that that the costs of
26 moving by one route might be greater than the cost of
27 moving by another route?

28 A. They may be. Of course, in so far as
29 these branch lines are concerned, we are talking about
30 perhaps 20 or 30 miles by the two different routes. It is



1 generally not a significant cost factor.

2 Q. I don't know whether this example would
3 be regarded as hypothetical or practical: I understand
4 that yesterday you were asked to give the distance from
5 Weyburn to Winnipeg?

6 A. No, I was asked for the number of days
7 in transit from Weyburn to Fort William.

8 THE CHAIRMAN: From Winnipeg to Fort William.

9 THE STENASON: And, incidentally, it is four
10 days; I was correct.

11 MR. SINCLAIR: The question that was put was,
12 the average time, and we undertook to look up the record,
13 and that is the average.

14 MR. BLAIR: Q. The average time from Weyburn
15 to Fort William is four days?

16 A. Yes.

17 Q. Are there different routes from Weyburn
18 to Winnipeg?

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A. Yes, I will just look that up. The normal route is Weyburn and north, that would be to Winnipeg from Weyburn to Pasqua which is the main line and the main line east to Winnipeg. That is on the Fort William movement. I do not know whether you are interested in Vancouver or not.

MR. SINCLAIR: He ought to be.

MR. BLAIR: So that to go from Weyburn to Winnipeg you go up to the main line of the C.P.R.

A. Yes.

Q. I suppose it is true to say that Regina and Winnipeg or Regina and Weyburn are more or less equidistant from Winnipeg?

A. Well, Weyburn is south-east of Regina, I would not say they were equidistant from Winnipeg. Weyburn is a little east of Regina and, therefore, a little closer to Winnipeg.

Q. Is there any way from Weyburn to Winnipeg other than over the main line?

A. Yes. We have a line that goes from Weyburn through Souris up into Rugby Junction which is outside of Winnipeg.

Q. Would the mileage of that line be somewhat approximate to the distance between Regina and Winnipeg?

MR. SINCLAIR: We can look up distance tables.

THE CHAIRMAN: Meaning distance as the crow flies?



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2 MR. BLAIR: Yes?

3 A. Yes. It is not necessarily the same
4 distance as the rail line and we do not have the
5 distance on this map, the map is not prepared with
6 distance in mind, it is a traffic map but we can look
7 that up.

8 Q. But in any case, I was trying to relate
9 this to rail distances rather than to straight line
10 distances. In any case it must be shorter from
11 Weyburn to Winnipeg via Souris than it is from Weyburn
12 to Winnipeg via Pasqua, Moose Jaw and the main line?

13 A. I will have to check that up.

14 Q. The ancient law of geography would say
15 that must be so.

16 A. Yes, but there may be a curvature in
17 this line.

18 COMMISSIONER BALCH: Why would they have the
19 two different routes? Would it be congestion of traffic
20 or is it handier to go one way than the other or what
21 is the reason?

22 A. Well, the reason for using one of these
23 routes rather than another of these routes would be
24 to bring traffic up to a point on the main line where
25 heavy tonnage trains are being operated. On this
26 southern main line we have relatively light --

27 THE CHAIRMAN: There is a better road bed on
28 the main line.

29 A. And cheaper trains, heavier trains. We
30 have much more volume. I am told the operating reason



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2 for this is that the north trains on the subdivision
3 away up here are very light.

4 MR. BLAIR: So, in other words, Mr. Stenason,
5 the route which is chosen is chosen for hard, practical
6 financial reasons, it is the most economical way of
7 shipping the grain.

8 A. I would say operating management is
9 continually finding or attempting to find and finding
10 the most economical way of handling traffic. It
11 depends on so many considerations, train weights and
12 volume and so forth.

13 Q. And there is a difference in costs between
14 the two routes from Weyburn to Winnipeg?

15 A. Yes, I would think there would be.

16 Q. And this difference in costs influences
17 railway policy in determining which route to use?

18 A. Yes.

19 COMMISSIONER BALCH: And I should imagine
20 delays would have something to do with it in relation
21 to the most expeditious method of moving freight.

22 A. Yes, a whole host of reasons - there are
23 many operating reasons.

24 MR. BLAIR: Q. Further to what Commissioner
25 Balch has asked you, I was going to ask for some
26 detail as to why there should be a difference in costs
27 of these two routes?

28 A. Well, the obvious reason, the reason that
29 first comes to me would be the train weights from
30 Weyburn along the southern main line or the southern



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2 line which is a branch line up through Souris and
3 into Winnipeg, the crew wages with relatively light
4 train weights are significantly higher than for
5 through train movements. We have any number of operating
6 people we can get the answer from.

7 Q. What you are saying in effect is it
8 is the utilization of the line, the density of the
9 traffic which plays a significant part in determining
10 the costs of movement over the line.

11 A. That is true of fuel and crew wages.

12 Q. Are there any other factors which
13 influence the cost and which influences the railway's
14 selection of a main line routing as opposed to a branch
15 line routing?

16 A. As I said, there are many operating
17 considerations and I think I would be a little out
18 of my depth if I attempted to --

19 Q. Would it be fair to say then operating
20 considerations might be summed up as being for utilization
21 of railway equipment over main line than over branch
22 lines?

23 A. I would say this would reflect a policy
24 of moving traffic in the most economic way possible
25 taking into consideration all manner of operating
26 factors and costs.

27 Q. Mr. Stenason, I would like to ask you
28 some questions about switching.

29 A. Yes, sir.

30 Q. Now, I have to ask you and the Commission



1
2 to bear with me: I do not know the exact reference
3 but I understand that switching costs have been
4 grouped in categories of yards, small yards, medium
5 yards and large yards?

6 A. Yes, that is correct.

7 Q. Now, do the switching costs of large
8 yards exceed those for medium and small yards?

9 A. Yes, I am told - this is a rather
10 difficult question to answer because of the different
11 nature of the work which is done in the large yard
12 relative to small yards. You have in large yards
13 generally a large amount of industrial switching and
14 you have a greater breaking up of trains and making
15 of trains and so forth so that your classification work
16 tends to be more extensive.

17 Q. In a large yard than in a small one?

18 A. Yes, there is simply more work involved.

19 Q. So that the large yards would appear to be
20 the higher cost yards?

21 A. For the reasons I mentioned. I am just
22 looking at some figures now. Yes, our larger yards
23 have classification, for instance, for a higher
24 unit time per car handled than do the medium sized
25 yards but this would reflect the greater amount of
26 classification work done at the large yard because of
27 the way trains are made up and broken.

28 Q. There has been a reference, I understand,
29 to congestion in the system: Where does this congestion
30 occur in your knowledge?



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A. Well, congestion can occur at a particular yard at a particular time of the day depending upon the volume of incoming and outgoing traffic. I would not say that you could single out any one yard and say it is congested all the time, at least I cannot from my own knowledge.

Q. With your knowledge of railway costs would you say that congestion has been a factor in raising costs of the railways operations?

A. Well, congestion is certainly a factor influencing costs in certain yards at certain times.

Q. You say certain yards at certain times, can you specify?

A. Well, there is, for instance, a large double in a yard waiting to go out, a very long train and the yard tracks are blocked. This is an example where congestion can occur. You can have transfers moving through the yard which can block other movement in the yard. Now, these are all a function of the volume of incoming and outgoing traffic which may arise at a certain time of the day depending on the volume of train operations.

COMMISSIONER BALCH: You try to get 8,000 cars into a 5,000 car yard and you have a job, I will tell you.

MR. BLAIR: Q. What I am really asking is where do these problems arise and are they problems which can be coped with by expanding the capacity of our yards? Is the system adequate to its present needs?



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A. Well, when we talk about expanding capacity, if we have a peaking problem it could be the increase in investment costs would outrun the reduction in your expenses, that is if the congestion occurs at certain times of the day it would mean a large amount of unused time during the rest of the day. The management is certainly rechecking the yards at all times and this reflects the desire, the balancing of the investment costs and operating costs. It is going on continually.

Q. Well now, you refer to congestion as if it is a bottleneck which occurs at some places and at some time in the railway system; you cannot help us by saying where and when this bottleneck is most important.

THE CHAIRMAN: We will take five minutes while Mr. Stenason consults.

---Short recess.

Page 12006 follows.



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2 THE CHAIRMAN: Order, please.

3 THE WITNESS: I have consulted and I find that
4 the periods of greatest congestion in large yards in
5 Canadian Pacific are at 6 o'clock in the evening and
6 about 5 o'clock in the morning, and that this has to do
7 with the arrival of trains and the departure of trains.
8 Incidentally, there is congestion on Canadian Pacific,
9 significant congestion at medium-sized yards when the
10 elevators are plugged at either Vancouver or Fort William
11 and the grain backs up along the main line and has to be
12 stored at medium-sized yards.

13 Q. That is a large yard?

14 A. Is a large yard, yes.

15 Q. Looking at Exhibit 59, Vancouver,
16 Fort William, they are also styled as large yards?

17 A. Yes, sir, they are.

18 Q. You say congestion occurs at certain
19 times of the day. But is it uniform at all times
20 during the year?

21 A. Well, certainly the congestion associated
22 with the movement of grain is not uniform at all times
23 throughout the year. It tends to come with the opening
24 of navigation at Fort William and the movement of grain
25 to Fort William, and there would certainly be congestion
26 at Winnipeg, which would result in that.

27 Q. So that some of the congestion of which
28 you are speaking is a factor arising from the grain
29 movement?

30 A. Yes, sir, that is correct.

Q. And it is related to the periods of the
year when grain movements are heavy?



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2 A. Yes; or in Vancouver there may be a number
3 of ships loading certain types of grain and it may be
4 necessary to move that particular type of grain to
5 Vancouver quickly. This could cause some congestion in
6 sorting out the grades that are required, at Calgary, and
7 also at medium-sized yards.

8 Q. What about the situation at Vancouver?
9 Are the yards at Vancouver congested under ordinary
10 circumstances?

11 A. Well, Canadian Pacific has a number of
12 yards at Vancouver. Our main classification yards are
13 at Coquitlam. There are mountains around Vancouver,
14 and you need a lot of large area for a yard, and on
15 Canadian Pacific that large area is located at Coquitlam.
16 Now, our main classification is performed at Coquitlam.
17 Then there are transfers of equipment to other yards
18 at Vancouver; we have a yard down at the water front
19 at Vancouver, and we have another classification area
20 which serves the elevators in Vancouver. Vancouver
21 is certainly not a cheap place in so far as yard
22 operations are concerned because of the very nature of
23 its geography.

24 Q. Would you say that congestion is an
25 important feature of the operation of the railway in these
26 yards in and around Vancouver.

27 A. I am told it is significant; there is
28 congestion at Vancouver.

29 Q. What is being done to alleviate this
30 congestion?

A. I am informed that during recent years



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2 Coquitlam yard has been extended: There has been
3 extensive signalling in so far as the transfer operations
4 are concerned, and there has been lengthening of tracks
5 in the other classification areas. This is something
6 that goes on all the time.

7 Q. But notwithstanding these measures,
8 congestion is still a significant problem in the Vancouver
9 area?

10 MR. SINCLAIR: Mr. Smith is here, and it may
11 be that if there is a line of questions like this they
12 should be directed to Mr. Smith, who, at one stage not
13 so long ago in his career, was in charge of the area
14 to where the questions are being directed, and that would
15 be quicker.

16 THE WITNESS: Yes, I think probably it would
17 be quicker.

18 MR. SINCLAIR: If Mr. Smith would stand up
19 there and, Mr. Blair, you can now talk to somebody who
20 has had the direct responsibilities in the area.
21 Mr. Smith is the assistant to the President I introduced
22 at the commencement of Mr. Stenason's work, and he has
23 done some work on this matter, in this study. He is
24 the assistant to the President of Canadian Pacific, and
25 he is a specialist in operations, and immediately
26 preceding that he was general superintendent of the
27 British Columbia district, with his headquarters at
28 Vancouver, and having under his direct control, through
29 the superintendent, the Vancouver terminal division.

30 THE CHAIRMAN: Mr. Blair?

MR. BLAIR: Q. Mr. Smith, is it not correct



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2 that, say, in the year 1956 a very serious problem arose in
3 Vancouver as a result of the congestion in your yards?

4 MR. SMITH: Well, on occasions, there was a
5 problem, certainly. Some of the occasions was because
6 of congestion of the grain traffic. At that time we
7 were in the process of extending some of the yard tracks,
8 and there was a period of congestion, yes.

9 Q. And after that congestion which arose at
10 that time in 1956, measures were adopted to alleviate
11 it to facilitate the movement of the traffic?

12 MR. SMITH: Well, of course, prior to 1956
13 there were also measures taken, but there were more
14 measures taken as a result of the study that had been
15 going on, that is true.

16 Q. Now, you mentioned the grain movement as
17 being a significant factor in the congestion which
18 occurred in 1956. How does that come about?

19 MR. SMITH: Well, I don't believe I said that.
20 But there was a congestion. You must remember that the
21 grain traffic from the elevators in Vancouver moves by
22 boat, and there are periods, and have been periods,
23 when the boats don't arrive quite as quickly as
24 anticipated, and in some cases this results in some
25 back-up of the traffic. In some cases we get what
26 we term a shot of wet grain, it is damp, and it has to
27 be put through the elevators to get dried, and this
28 has on occasions also resulted in an accumulation of
29 grain.

30 COMMISSIONER BALCH: Mr. Smith, isn't it
a fact that congestion is usually spasmodic?



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2 MR. SMITH: That is correct, sir.

3 COMMISSIONER BALCH: And, naturally, the railroad
4 isn't going to build a yard and enlarge it unless they
5 have to. In other words, we will say you have a very
6 busy time and there is freight comes through and it is
7 congested. Now, that may go on for two or three weeks
8 and later on your business drops away and you have plenty
9 of room in the yards, and you don't expand your yard
unless you have to?

10 MR. SMITH: Yes, that is correct.

11 COMMISSIONER BALCH: Did you have room to
12 expand Coquitlam yard?

13 MR. SMITH: Yes, we did, sir.

14 COMMISSIONER BALCH: I tried to get it
15 extended one time; the tracks were too close.

16 MR. SMITH: The tracks have been widened now,
17 sir.

18 COMMISSIONER BALCH: I think that is one of the
19 main things we should keep in mind, and it is the
spasmodic congestion.

20 MR. SMITH: Well, practically every day, as
21 explained by Mr Stenason, you may expect to have two
22 peak periods in every yard, because in the evening you
23 are pooling your sheds and you are getting your symbol
24 trains to run, and you have the shed traffic coming in
25 which has to be plotted, and so on, and in our studies
26 to enlarge Coquitlam or what to do with it, naturally
27 the economics come into it, because naturally we are not
28 going to build a plant which is only going to be used
29 spasmodically; in other words, you can still handle
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2 the traffic without having equipment which is standing
3 there idle a great deal of the time.

4 COMMISSIONER PLATT: There is one question
5 I would like to ask you. Assuming that we are going
6 to continue to ship grain out of Vancouver at approx-
7 imately the present amounts -- and that I wouldn't be
8 willing to bet money on -- would it in the overall be
9 better to have more terminal facilities there, terminal
10 storage facilities? Would that help the situation
11 materially? We have had great difficulty in
12 Vancouver, and certainly the railways have been put to
13 great inconvenience through the very fact that ships
14 don't arrive when they are supposed to. Do you think
15 that would help?

16 MR. SMITH: Well, under the present flow of
17 grain traffic, sir, I think the facilities are adequate
18 at the present time. Now, this spring, for instance,
19 this early spring, we had a back-up --

20 MR. SINCLAIR: I wonder if Mr. Smith is
21 using "terminal" in the railway sense? I am quite
22 sure Commissioner Platt, when he talks about terminal
23 facilities, means terminal grain handling facilities,
24 grain elevators. I think you are meaning, sir, more
25 terminal elevators so that cars could go in and boats
26 take it from the elevator.

27 COMMISSIONER PLATT: I think I said "storage".

28 MR. SMITH: I don't know how economic it
29 would be for the grain trade, but it certainly would
30 assist our problem if they had more terminal storage
facilities for the grain, particularly during these



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periods of drying and carrying grain over.

COMMISSIONER PLATT: Thank you, Mr. Smith.

MR. BLAIR: Q. Mr. Smith, I am going to put my problem to you very simply. It has been suggested that congestion is a factor which adds to costs, and you have made the other obvious suggestion that if you over-build facilities, that, too, would add to costs. Now, are you satisfied that there has been a proper balance achieved, say, in Vancouver and in other parts of the system?

MR. SMITH: Well, you are talking now about tracks and not storage elevators.

Q. Absolutely, I am talking about railway facilities.

MR. SMITH: Well, I am quite satisfied that in Vancouver our trackage layout at Coquitlam and for the elevators is at the economic point. In other words, our tracks are as long as we can economically use them with the present traffic.

Q. So for the time being you are satisfied that the facilities in Vancouver are adequate to the needs of that port?

MR. SMITH: Well, at the present time, yes.

(Page 12016 follows)



1
2 Q. And are you satisfied that the facilities
3 do not add unduly to the cost of movement by reason of the
4 congestion which occurs at various periods of time.

5 MR. SMITH: Do not add unreasonably, yes, I
6 would agree with that.

7 Q. At various times is it sufficient to add
8 significantly or insignificantly to the cost?

9 MR. SMITH: It does add to it at times, yes.

10 COMMISSIONER MANN: Perhaps this can be
11 directed to Mr. Stenason. Excess capacity has a
12 tendency to add to cost, does it?

13 MR. STENASON: Excess capacity can add to
14 cost.

15 THE CHAIRMAN: I would say that must add to
16 cost if you have a capital development you are not going
17 to use, it must add to the cost.

18 MR. STENASON: Yes.

19 MR. BLAIR: Q. Mr. Smith or Mr. Stenason,
20 the problem in Vancouver and perhaps elsewhere appears to
21 be a balancing of inconvenience and expense from congestion
22 against the cost which would arise if excess capacity
23 is created. Are there other solutions to this problem
24 in the Vancouver area, for example, in view of the fact
25 that there are other railways operating in that area?
26 Would the cost picture be better if the terminal facilities
27 were operated by one terminal railway?

28 MR. SMITH: I do not believe it would. I
29 have not studied that question but I do not believe it
30 would.

Q. When you say you have not studied it, I



1
2 take it you mean that your company has not considered this
3 suggestion.

4 MR. SMITH: Our yards and our layout lead to
5 the shortest and most direct route to the elevators and
6 I am quite sure that our type of switching in the manner
7 of our handling the grain is as economical as it can
8 be done in Vancouver.

9 Q. Looking at all traffic, you are not in a
10 position to say whether or not over-all economies could
11 be achieved if the operations in the Vancouver area
12 were coordinated in total under the terminal railway?

13 MR. SMITH: I would be very doubtful if they
14 could be.

15 Q. Dealing with the costs at terminals or
16 at major yards, are you or Mr. Stenason able to say what
17 is the extent to which the costs of one terminal
18 must be greater than those of another -- say the costs
19 of terminal switching at Vancouver as compared to
20 Calgary, Vancouver as compared to Winnipeg.

21 MR. SINCLAIR: What kind of switching?
22 Classification switching?

23 MR. BLAIR: Classification.

24 MR. SINCLAIR: Classification switching,
25 industrial switching or elevator switching?

26 MR. BLAIR: I do not want to limit myself
27 unduly because this subject of costs is broad and I
28 think we would be helped if the experts could comment
29 upon the relevant costs of these terminals and major
30 yards and how they might be assessed.

MR. SINCLAIR: The evidence yesterday was given



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2 that there was a hump at Calgary, and you have picked
3 Calgary. There was also evidence given of a movement
4 up to Coquitlam which is a different situation from that
5 at Vancouver, and exists at Calgary. This is evidence
6 that has already been given and that is why I bring it
7 to the attention of the Commission. We want to be as
8 helpful as we can and if counsel would clarify a little
maybe we could assist.

9 THE CHAIRMAN: Do you wish to press the
10 question, Mr. Blair?

11 MR. BLAIR: I think there must be a point of
12 fact or of judgment in the railways' over-all view of
13 this with regard to the cost of yards and terminals and
14 the like where they might be able to assess costs of
15 congestion and other factors at Vancouver compared to
other main yards.

16 MR. SMITH: Perhaps this would be helpful.
17 You must remember at Calgary the traffic for Vancouver
18 is marshalled and is originated, you might say, or comes
19 to the branch lines to Calgary and that is put in trains
20 for Vancouver, whereas at Coquitlam there is a different
21 system. At Coquitlam you are not marshalling a train
22 or originating a train; all you are doing is taking it
in by transfer to the elevator.

23 THE CHAIRMAN: It is the end of the line.

24 MR. SMITH: That is right; it is an entirely
25 different situation.

26 MR. BLAIR: Q. What about outgoing traffic?

27 MR. SMITH: Of course outgoing traffic from
28 Vancouver is originated in several different locations,
29
30



1
2 which again is different from Calgary. Your outward
3 traffic at Vancouver, or part of it, originates from
4 Vancouver Island and comes over and is marshalled right
5 in the yard by the docks; part of the traffic comes
6 to us at New Westminster and is marshalled at New
7 Westminster. Gradually it all gets to Coquitlam and is
8 put together in these trains. It is a different type
9 of traffic, a different type of switching from Calgary
entirely.

10 COMMISSIONER BALCH: You get an amount of
11 cars ready for transfer, you transfer those cars and then
12 go to Coquitlam?

13 MR. SMITH: That is right.

14 COMMISSIONER BALCH: And then the train is
15 moved up the line; is that the movement?

16 MR. SMITH: That is right.

17 MR. BLAIR: Q. There are many other questions
18 which might suggest themselves but I do not want to
19 labour this question of the yards too much. Perhaps I
20 might ask a more general question. If congestion is
21 a factor in over-all railway costing, is it important
22 on the line or in the yards?

23 MR. SMITH: It is important in both places.

24 Q. To what extent is congestion a factor in
25 increasing costs on the line itself?

26 MR. SMITH: You mean how does it increase the
27 cost?

28 Q. How does it and to what extent does it
29 in general?

30 MR. SMITH: To speak generally about the



1
2 Vancouver area, which I think you are familiar with,
3 when there is congestion in, say, grain traffic for the
4 port and it is necessary to store carloads of grain,
5 naturally they are stored out on the line or some of them
6 are stored out on the line, and then that becomes a
factor and does increase the cost.

7 Q. So that your answer to me seems to
8 suggest that if congestion arises on the line it really
9 arises because of the congestion which occurs at the
10 terminal or in the yard.

11 MR. SMITH: At the terminal, yes.

12 Q. Assuming no congestion at the yard
13 or at the terminals, is there a factor of cost arising
14 from congestion in the sense that there are not enough
15 passing tracks and other facilities to permit the free
movement of trains across the system?

16 MR. SMITH: I am not sure that I understand
17 your question. Are you saying to me, do we have enough
18 sidings or passing tracks on the line now to handle the
19 type of traffic or the volume of traffic we now have?
20 Is that what you mean?

21 Q. Yes. Are you satisfied that the railway
22 has sufficient facilities on its line to handle traffic
23 or a reasonable expected increase of traffic without
congestion or adding to costs?

24 MR. SMITH: There are areas that vary. If
25 you are talking about Vancouver or British Columbia area,
26 the trains moving from Calgary to Vancouver, yes, we
27 have sufficient sidings and sufficient length of sidings
28 to handle the traffic as expeditiously and economically
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2 as possible.

3 THE CHAIRMAN: Are we to understand, Mr. Smith,
4 that the plant now is sufficient to take care of no more
5 traffic and that you do not feel it would be justified
6 to take care of every abnormal situation?

7 MR. SMITH: That is correct, from Calgary to
8 Vancouver.

9 MR. BLAIR: Q. From British Columbia,
10 Alberta, Saskatchewan, there is sufficient trackage?

11 MR. SINCLAIR: Mr. Smith, not too long ago,
12 three or four years ago, was in charge of the Saskat-
13 chewan district, so we are again on familiar ground.

14 MR. SMITH: I believe that the question has
15 to be answered generally and I will endeavour to answer
16 as best I can to be of assistance. We have made a
17 study of all the main line in Saskatchewan and Manitoba
18 and Alberta and so on, and we are now in the process of
19 changing in Saskatchewan on one of our main line sub-
20 divisions the type or method of handling the traffic
21 because we know we can do it more economically.
22 There are occasions, east of Saskatchewan, when the
23 sidings do tend to this, that is true.

24 COMMISSIONER BALCH: Is it not a fact that
25 most Canadian National and Canadian Pacific have programs
26 of extending the sidings because of the increased
27 length of trains?

28 MR. SMITH: In some areas, yes. In some
29 areas we are going to C. T. C. and lengthening the
30 sidings at the same time.

MR. BLAIR: Q. So this is a significant



1
2 feature of present railway operations -- reviewing the
3 main lines of track to see whether modifications can be
4 made to facilitate freedom of the traffic.

5 MR. SMITH: Yes, this is the type of traffic
6 we are conducting all the time.

7 Q. Mr. Smith, perhaps by way of summary
8 without endeavouring to put words into the mouths of
9 either Mr. Stenason or yourself, am I correct in assuming
10 that so far as congestion, as a cost factor, is concerned,
11 it is much more significant in regard to yards and
terminals than in regard to the line haul?

12 MR. SMITH: I would say yes, generally speaking
13 it is.

14 Q. I do not know just to whom the next
15 series of questions should be directed.

16 MR. SINCLAIR: What are they about?

17 MR. BLAIR: They are about improvement of
18 traffic.

19 MR. SINCLAIR: We have not a traffic man here
20 but we have people who are knowledgeable in the movement
21 of traffic -- Mr. Stenason and Mr. Bentham.

22 THE CHAIRMAN: Ask the question and we will
23 tell you who will answer it.

24 MR. BLAIR: Q. I think some questions along
25 these lines were asked yesterday.

26 THE CHAIRMAN: We do not want that position
27 if we can help it.

28 MR. BLAIR: I appreciate that and I appreciate
29 your patience in listening to me.

30 Q. Mr. Stenason, taking a valuable and



1
2 important commodity like plywood, which is shipped from
3 Vancouver to Toronto, to what extent is the movement
4 of carloads of plywood interrupted en route or to what
5 extent are the carloads of plywood moved without
6 interruption?

7 MR. STENASON: The bulk of through traffic,
8 long haul traffic of this type, of plywood from Vancouver
9 to Toronto would move on Canadian Pacific symbol trains
10 and these are trains which operate through from
11 Vancouver to Toronto. Was that the nature of your
12 question?

13 Q. That is right.

14 MR. STENASON: The movement would not be
15 interrupted.

16 Q. So that this train comes to major yards
17 en route and the movement would not be interrupted by the
18 breakup of the train?

19 MR. STENASON: The train itself would be
20 worked on and it would be a normal time in the yards,
21 that is true.

22 (Page 12026 follows)
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1 Q. This is perhaps a question you might
2 wish to take under advisement, but what would the average
3 time be for hauling a car of plywood from Vancouver to
4 Toronto?

5 MR. STENASON: We will have to check this,
6 but we believe it is about five to six days.

7 COMMISSIONER MANN: That is the average time,
8 is it?

9 MR. STENASON: Yes, that is the running time
10 of train 954.

11 COMMISSIONER MANN: The running time, but not
12 the average time?

13 MR. STENASON: Yes, average lapsed time from
14 Vancouver to Toronto of the train itself, and this
15 traffic would move on 954 or a similar train.

16 COMMISSIONER MANN: Well, we have run across
17 this twice today: is this what it is physically
18 possibly to do, or has this been your experience?

19 MR. STENASON: Oh yes, the simple trains
20 operate according to the schedule.

21 COMMISSIONER MANN: It is the simple train's
22 average time you have given us now?

23 MR. STENASON: Yes, including the lapsed time
24 in terminals of the train, and I am informed by the
25 operating department that they run on time.

26 MR. BLAIR: Q. So, it doesn't take too
27 long to get plywood from Vancouver to Toronto?

28 MR. STENASON: No.

29 Q. Mr. Stenason, yesterday you were asked
30 a question by Mr. MacKimmie which occurs at page 11851 of



1 the transcript, the last question on that page. Mr.
2 MacKimmie's question was this:

3 "Could you tell me how much of the total
4 costs represent the extra burden going over the
5 mountains? Could you tell me if it would be
6 substantial?

7 A. Well, I think the only items involved
8 would be fuel and crew wages. They are higher be-
9 cause of the lighter trains which have to be operated
10 through the mountains.

11 Q. But would you agree that the cost per ton
12 mile would be greater?

13 A. I think the cost would be somewhat greater
14 and would be substantially greater."

15 MR. SINCLAIR: I think the word "not" was
16 eliminated. That was one of the errata we intend to
17 put in.

18 MR. STENASON: The point being here, in so
19 far as all of the expenses except fuel, and crew wages
20 are based on regression analysis, which gives the same
21 variable road maintenance cost for traffic wherever it
22 is moving. Fuel and crew wages are the categories of
23 expense which would differ based on weight of train,
24 and the train weights would be lighter.

25 There should be a "not" in there.

26 COMMISSIONER BALCH: Where should the word
27 "not" be?

28 MR. STENASON: "Would not be substantially
29 greater."

30 MR. BLAIR: Q. Mr. Stenason, the clarification,



1 of course, is extremely helpful in the correction of
2 the typographical error. Dealing with idea of cost per
3 ton mile, would these costs per ton mile be greater
4 than in hauls over light density traffic?

5 MR. STENASON: No, they would not be.

6 Q. So that density of the traffic over the
7 mountain line is a factor in assessing the over-all
8 cost?

9 MR. STENASON: Yes, the train weights of
10 the through trains operating from Calgary to Vancouver,
11 in both directions, are lighter than the through trains,
12 let us say, east of Swift Current, Winnipeg to Fort
13 William, but they are still in excess of branch line
14 trains -- way freight trains.

15 Q. Mr. Stenason, you have referred to the
16 fact that you have prepared cost studies of other
17 commodities apart from grain?

18 MR. STENASON: Yes.

19 Q. In conducting these studies did you allo-
20 cate overhead costs in the same way as in the grain
21 study?

22 MR. STENASON: We report to our traffic depart-
23 ment -- and this is standard procedure -- the variable
24 cost of the traffic and the full cost of the traffic,
25 and our normal procedure in costing is to include in
26 the constant expense items such as passenger deficit.

27 Q. And in these costings, this constant
28 expense is allocated against the particular traffic
29 being costed?

30 MR. STENASON: Yes sir, and, incidentally, we



1 use also the ton and ton mile method of distributing the
2 constant rather than the expense method for ease of
3 dealing with it. I think those are the two major
4 differences in our treatment of constant cost of grain.

5 Q. Am I correct in assuming the passenger
6 deficit is not costed in the grain study?

7 MR. STENASON: Yes, sir.

8 Q. So that, to that extent these other
9 costing procedures are different than the costing pro-
10 cedure you employed with regard to grain?

11 MR. STENASON: Yes, as I said, there are
12 two differences in the treatment of full cost: one is
13 the inclusion of the passenger deficit and the other is
14 the allocation of the constant cost on a ton and ton
15 mile basis. Dr. Edwards has reported to the Commission
16 the effect of allocation of constant on that common
17 ton mile basis for grain.

18 Q. Mr. Stenason, I would like to refer you
19 to page 11925 of yesterday's transcript where in reply
20 to questions from Mr. Mauro you say that 20,000 empty
21 box cars are moved to British Columbia at the present
22 time -- no, you corrected that: I am reading at the
23 wrong line. 20,000 empty box cars were moved eastward
24 from Vancouver in 1958. 5,000 empty box cars were moved
25 westward?

26 MR. STENASON: Yes. Now, this count was taken
27 at Field; this is the only data we have, and this is
28 our main line interchange plant -- or, was in 1958 --
29 between the British Columbia district and the Alberta
30 district, and this is the way the majority of the empty



1 cars moved back and forth between Vancouver.

2 Q. Do you know whether any of these cars
3 were loaded beyond Field in their movement eastward?

4 MR. STENASON: Oh yes, they may have been
5 loaded at Calgary for movement to Toronto, or they may
6 have been loaded with grain at a way station and moved
7 back to Vancouver with grain.

8 COMMISSIONER BALCH: Would you explain --
9 because I know some of the commissioners would not
10 understand -- an interchange point? I think that should
11 be done for the record.

12 MR. STENASON: Very good, sir. An interchange
13 point is where two railways come together, and it is
14 used most often in the case of different railways.
15 There is an interchange point between Canadian Pacific
16 and the New York Central. In addition to that, Canadian
17 Pacific was organized on a district basis and an inter-
18 change point then between districts, which is what
19 Field was in 1958, or where the Alberta district ended
20 and the British Columbia district took over, and there
21 were counts of cars, and the basic statistics of the
22 company were organized on that basis.

23 MR. BLAIR: Q. Mr. Stenason, these figures
24 which have been given on the movement of empty cars in
25 and out of British Columbia or Vancouver are related to
26 the year 1958: would you regard that as a typical year or
27 an exceptional year?

28 MR. STENASON: Well, it was a typical year for
29 the costing of grain. I would have to check the car
30 distribution for other years to be certain of my answer,



1 but I would think it is a typical year.

2 Q. Have you got comparable figures for
3 1957, say, and 1959?

4 MR. STENASON: Yes -- not with me; they are
5 in Winnipeg.

6 Q. Would it be possible to present them at
7 some stage in these proceedings?

8 MR. SINCLAIR: Precisely what do you wish him
9 to do?

10 MR. BLAIR: Well, Mr. Sinclair, at this partic-
11 ular page in the transcript, 11925 --

12 MR. SINCLAIR: That is the interchange of
13 empties to ---

14 MR. BLAIR: And the returns.

15 MR. SINCLAIR: Mr. Chairman, it occurs to
16 me that, as Mr. Stenason has said to the Commission,
17 this was worked on the interchange point Field, which has,
18 under the reorganization disappeared. I don't know
19 if we will be meeting with an interchange at Swift
20 Current as against Field, which I think is now the
21 interchange point divisionally.

22 MR. STENASON: Yes, so they would not be
23 available for 1959.

24 MR. SINCLAIR: That is one thing. Now, in
25 1957, I don't know whether our basic records are main-
26 tained that long, and we would have to find that out.

27 MR. BLAIR: I know you are not giving evidence,
28 Mr. Sinclair, but the witness said the figures were
29 available.

30 MR. STENASON: Well, I am not certain. I have



1 to check this. The figures are in Winnipeg.

2 MR. SINCLAIR: I don't know what this has
3 to do with the problem, but maybe the Commission would
4 like to have it and we will see what we can do. If
5 my friend wants it, he must have some reason for it,
6 and if it is not too difficult we will try to get it,
7 and if it is, we will get in touch with you.

8 MR. BLAIR: We think it might be of assistance
9 to us and to the Commission.

10 THE CHAIRMAN: In what way?

11 MR. BLAIR: So that some measure, Mr. Chairman,
12 might be placed upon costs which arise from the movement
13 of empty cars.

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2 MR. SINCLAIR: We will try to get it.

3 MR. BLAIR: Q. One further question on this
4 matter of the empties, Mr. Stenason. Does the incidence
5 of movement of empty cars occur seasonally or does
6 it occur in uniformity throughout the year?

7 MR. STENASON: I would say that depends
8 upon the category of traffic that we are looking at.
9 As part of our testing in connection with the grain
10 study we have various tests on the empty return
11 movement associated with the seasonal aspects of
12 grain movement to the lakehead. As part of this we
13 have examined both loaded and empty car movements of
14 non-grain traffic and it would appear to be fairly
15 constant through the year with the exception of a
16 minor peaking of the non-grain traffic which occurred
17 in April, May and June. It is quite minor. Does that
18 answer your question?

19 Q. Peaking, you say, is in non-grain traffic
20 rather than grain traffic?

21 MR. STENASON: Yes, this is, of course, when
22 the grain peak arises as well, it is a case of a
23 peak coming on a peak.

24 Q. But essentially the disparity in the
25 movement of empty cars is related to the movement of
26 grain to the Pacific Coast.

27 MR. STENASON: Well, that is a difficult
28 question to answer. I would have to examine the volume
29 of grain unloaded and the volume of other traffic
30 loaded and it is hard, in an overall sense, to segregate



1
2 this between the different categories of traffic
3 unless you actually trace the cars as we did in the
4 study.

5 Q. I suppose it might not improperly be
6 suggested that there would be a greater balance
7 achieved in regular traffic than in traffic which has
8 seasonal peaks and valleys.

9 MR. STENASON: No, that depends upon the
10 loading and unloading characteristics of the different
11 types of traffic but I would certainly say that
12 generally, yes, one would expect more uniform dis-
13 tribution of empty cars.

14 Q. And projecting that thought not to
15 months but to years, in years when there are heavy
16 movements of grain it would be reasonable to think
17 that a disparity would be greater than when grain
18 movements were more normal.

19 MR. STENASON: There would certainly be
20 more empty mileage.

21 Q. Conversely I suppose movements from the
22 west coast would be affected by general business
23 conditions whether or not their general strikes had
24 interrupted production and all that.

25 MR. STENASON: Yes.

26 Q. So that if 1958 happened to be a year of
27 heavy grain shipments and also happened to be a year
28 where the pulp and paper industry was interrupted by
29 a long strike, this would be a factor in the amount of
30 disparity which occurred.



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2 MR. STENASON: Well, this would not be a
3 factor insofar as empty car miles used in grain were
4 concerned but it would certainly be a factor in the
5 demand for cars and so forth.

6 MR. BLAIR: Thank you, Mr. Stenason.

7 THE CHAIRMAN: Thank you, Mr. Blair. Mr.
8 Frawley.

9 MR. SINCLAIR: Mr. Chairman, are we going
10 to take our five minute break on the hour?

11 THE CHAIRMAN: Yes, we will take it now.

12 ---Short recess.

13
14 THE CHAIRMAN: Order, please. Mr. Frawley.

15
16 CROSS-EXAMINATION BY MR. FRAWLEY:

17 Q. Mr. Stenason, I would like to commence
18 our discussion of this matter by asking you to be good
19 enough to define size related costs.

20 A. Mr. Frawley, the size related costs
21 are the costs associated with size of plant, that is
22 miles of track as opposed to the costs which are
23 variable with output, that is gross ton miles or
24 yard and train switching miles. They are the costs
25 which are there as a result of the size of plant and
26 they are often referred to as an irreducible minimum
27 level of cost. Where you have track the total cost
28 is a function of the irreducible minimum level of costs
29 and also the costs which come as a result of the output
30 of transportation service.



1
2 Q. I would ask you to look at what was
3 said in the joint submission, Exhibit 44 at Page 25.
4 I will just read it to you.

5 MR. SINCLAIR: That is the one that is signed
6 by lawyers?

7 MR. FRAWLEY: This is signed by four lawyers
8 so that should make it good.

9 Q. I read there from Paragraph 76, speaking
10 of expenses a little further down in the middle of
11 that paragraph. We will see if I am reading it right.

12 "These include the irreducible minimum portion
13 of road maintenance expenses or the size
14 of plant expenses --".

15 Now, first, let me put my question; can I
16 read that "or" as meaning "otherwise expressed"?

17 A. Yes.

18 Q. In other words, it would read:

19 "...the irreducible minimum portion of road
20 maintenance expenses otherwise expressed the
21 size of plant expenses..."?

22 A. Yes.

23 Q. Well now, the irreducible minimum costs,
24 are they the same in every place and for every mile of
25 track?

26 A. Yes sir, that is the inference which...

27 Q. That goes along, that is a necessary
28 implication of that definition?

29 A. Yes, that is right.

30 Q. Now, let me ask you this question and I am



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rather anxious to know, did that definition come down from the scholars, the classical scholars or is it something other than part of our heritage from the classical economists.

A. Well, I do not know what the classical economists have said about this matter.

Q. If anything?

A. There has been wide use made of this concept in railway cost finding which goes back to Dr. Edwards work.

Q. Well then, how far back does it go, that is what I want to ask you about. You do not know what the classical economists have said about it and may I suggest to you that you will not find classical economists saying anything about it.

A. The classical economists were generally concerned with matters other than costing.

Q. That is true.

A. They were concerned with distribution and value theory.

Q. I just wondered if there is anything written by the scholars on this concept of size related costs?

A. I do not know of anything.

Q. No. Would it be fair to say that you personally developed it?

A. I personally developed it?

Q. Yes?

A. No, I did not, sir.



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Q. You applied it first to the affairs of the Canadian Pacific Railways?

A. Yes, but the concept of size related costs goes back some degree in cost finding.

Q. All right, what is the significance of the word "size" in that expression of size related costs?

A. Costs which vary with size of plant.

Q. In other words - now, you will bear with me if my questions seem amateurish - would it follow that the Canadian Pacific Railway would have one kind of costs because it extends from the Atlantic to the Pacific and the Lacombe & Blindman Valley Railway which is now part of the C.P.R. being a small railway only had a few miles of track, would that constitute a difference in the size related costs in those two companies?

A. I am not sure I understand your question. The size related costs are based upon a regression analysis which reflects system experience and have been tested in the area where the size related costs were applied through actually going out to the field and getting the cost of maintaining the lines in question and also the depreciation on the lines in question.

Q. Well, it has no meaning, then, other than as you used it in the matter of multiple regressions?

A. I would say it has a very definite conceptual meaning. What it means is, where you have a line with relatively light traffic density that this is an estimate of what the maintenance cost or the



1
2 investment costs would be .

3 Q. Now Mr. Stenason, I am going to take you
4 into another field for just a moment. The Standard
5 Oil Company of New Jersey is a global enterprise?

6 A. Yes, sir.

7 Q. And it has a large refinery, among many
8 others, at Bayonne, New Jersey?

9 A. Yes.

10 Q. And it makes gasoline at Bayonne, New Jersey?

11 A. Yes.

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13 Page 12046 follows.
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2 Q. Now, as against that, let's take a small
3 operation in the province of Alberta, what we used to
4 call tea kettle operations, just the minimum operation
5 to make gasoline. Most of those have disappeared
6 now and gone into the large companies. I want you to
7 visualize that the Standard Oil Company are making
8 gasoline in Bayonne, New Jersey, and, say, the old
9 Mayland Company making gasoline at or near Turner
10 Valley. Are you telling me that there is some important
11 difference in the cost of a gallon of gasoline that would
12 come out from an examination of the New Jersey operations
13 at Bayonne and the Mayland operation at Turner Valley?

14 A. Yes.

15 Q. What is the difference in the costs?

16 A. The difference between the relationship of
17 costs between the variable output and the costs
18 which are fixed.

19 Q. In simple layman's language, would the
20 results of this mean that it would cost New Jersey more
21 to make gasoline than Turner Valley?

22 A. If we assume that the output associated
23 costs are linear, that is that they are the same over
24 the various levels of output, then we would discover
25 that the total cost and the unit cost -- pardon me,
26 the unit cost of the gasoline would be greater at the
27 smaller refinery.

28 Q. Not at the larger refinery?

29 A. The unit cost?

30 Q. Yes.

A. No.



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2 Q. If the cost has a relation to size, the
3 cost initially should be larger?

4 A. In total amount, yes, because there is
5 a greater output at the refinery in New Jersey.

6 Q. Do you mean that the cost analyst at
7 Bayonne would have to reach out and take into his cost
8 factors the expense of operating tankers from Sumatra,
9 say, into Bayonne?

10 MR. SINCLAIR: Where is Sumatra?

11 MR. MAURO: Dutch East Indies.

12 MR. FRAWLEY: Your agent at Bangkok could
13 probably tell you.

14 MR. SINCLAIR: This ability of Canadian
15 Pacific to fly through Bangkok has been raised in other
16 places, and if my friend thinks we are in the oil business
17 in Bangkok, I would wish he would tell us how. But
18 I didn't know that Sumatra was in the Dutch East Indies,
19 and I didn't know that the Dutch East Indies now
20 existed. I am just a Canadian, and I haven't had the
21 advantage of having experts who have a broader grasp
22 of world affairs.

23 MR. FRAWLEY: Q. Mr. Stenason, certainly
24 when you speak of size related costs you are not
25 endeavouring to say that because the Canadian Pacific
26 is told this means more cost can go on its operation?

27 A. No. What this refers to is a segregation
28 of costs, those which are present and those which are
29 present because there is a certain volume of output.

30 Q. Mr. Stenason, can you tell me, just
before we leave the cost related, where the conceptual



1
2 meaning of size related has been defined elsewhere than
3 by yourself and John Meyer?

4 A. I believe it has been defined in cases
5 in the United States. I will have to check that with
6 Dr. Edwards. I am advised that it has been used in a
7 grain case in the United States and also in a trans-
continental divisions case in the United States.

8 Q. Will you give me the date of the trans-
9 continental divisions case, just approximately?

10 A. About 1955 to 1956. it started.

11 Q. And the grain case?

12 A. 1956 to 1957.

13 Q. Those are both railway cases?

14 A. I am informed that the concept has been
15 used in cost in the United States by at least one rail-
way for over 25 years.

16 Q. Now, we have it confined up to now to the
17 railways, and I ask you, do you know of any other industry
18 where the size related concept of cost has been used?

19 A. I would say that the concept is an
20 integral part of any industry.

21 Q. Can you give me any instances of any other
22 industries? Can you refer us to any reports, that it has
23 been used other than on railways?

24 A. I believe that -- and I will have to check
25 this to be certain -- that in some studies that were done
26 by Joel Dean of Columbia and published during the
27 30's this concept was used. But I will have to check
that.

28 Q. Now, Mr. Stenason, I would like to take
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you to your cost study, which is C. P. 7 (vii), and there on page 20 --

MR.SINCLAIR: I believe, so that the record may make this clear, these numbers were given at a conference of the consultants in November or October of last year, and they have never been put on the record here. This was a conference of consultants of the railways, provinces and the Commission and technical staff, and so on. They are not an exhibit number or a Canadian Pacific number.

THE CHAIRMAN: Well, it is a submission, though, on the cost study.

MR. FRAWLEY: I have never referred to anything, I have never referred otherwise than as C. P. 7 to the Stenason cost study. But you say that came about from some numbers that you distributed at a conference.

MR. SINCLAIR: They were numbers put on by some people at the conference.

THE CHAIRMAN: Identify it now.

MR. FRAWLEY: I identify it now as a statement headed "Canadian Pacific Railway. Memorandum in Respect of Results of Cost Study." We knew it was Mr. Stenason and we marked it, and we couldn't have marked it until then.

Q. Now, on page 20 you speak of tests you made to determine solely relatedness. Perhaps it wouldn't be a bad idea if you would put on the record the definition of solely relatedness?

A. Solely relatedness refers to a facility



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which, to an important degree, is associated with a particular category of traffic.

Q. And have you determined the solely relatedness of other traffic than grain?

A. What do you mean by that, Mr. Frawley?

Q. You have determined the solely relatedness of certain lines in so far as the grain traffic is concerned?

A. Yes.

Q. Now, have you done the same thing with regard to other traffic?

A. Well, in cost studies, for example, if one is looking at passenger service, there are certain solely related facilities. We are in the process of doing that study now.

Q. I was just interested to know whether or not you had ever worked out this solely relatedness concept with regard to other traffic hauled by Canadian Pacific.

A. Oh, yes.

Q. And some of them are what?

A. I was thinking of the passenger study.

Q. Where are the passenger lines, where are the lines that are solely related to passenger?

A. These trackage terminals -- there is a small amount of it, about 60 miles.

Q. In the whole Canadian Pacific?

A. Yes.

Q. Where are the lines that are solely related to the livestock traffic?



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2 A. I don't know.

3 Q. Where are the lines that are solely
4 related to the lumber traffic?

5 A. Whether there are any, we haven't analyzed.

6 Q. Where are the lines which are solely
7 related to the coal traffic?

8 A. Well, the same answer applies. I think
9 that the mileage of such lines would be very, very
10 small indeed. But we have not worked out the solely
11 related mileage.

12 Q. You tell us in your study on page 20 of
13 your memorandum that you made three tests, and I will
14 just paraphrase them, because I am sure you are
15 familiar with them. You made an economic test, a bridge
16 traffic test and a traffic mix test. Would that be
17 the proper way to describe it?

18 A. That is right.

19 Q. Now, the essence of the economic test
20 is that net revenue from non-grain traffic fails to cover
21 size related cost.

22 A. Yes, the size related maintenance cost.

23 Q. Now, if it should be -- and I don't expect
24 you to agree too readily with me -- that the size related
25 costs can be shown to be less than you have computed them,
26 then would it not be true that in the total cost picture
27 assignable to grain there would be a substantial reduction
28 in the track mileage assigned to grain?

29 A. Well, Mr. Mauro and I went over this
30 yesterday, Mr. Frawley, and I don't think I can add to
what was said yesterday.



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TORONTO, ONTARIO

Stenason, cr-ex.
(Frawley)

12052

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2 Q. Could you reply very briefly in response
3 to my question?
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10 (Page 12056 follows)
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2 A. Yes, there were three tests applied to
3 determine solely relatedness, and the facts of and the
4 effect of the change in the solely related costs would
5 depend upon the working of the other tests. I would like
6 once again to point out that this test of solely related-
7 ness is supported through having secured the actual branch
8 line maintenance expenses on these light density lines,
9 which is the surest thing we can have as to the irreduc-
10 ible minimum level of maintenance costs.

11 Q. Were those actual expenses that you are
12 now speaking of, Mr. Stenason, made available to our
13 consultants?

14 A. They certainly knew of their existence,
15 Mr. Frawley.

16 Q. Were they made available?

17 A. I do not think they have asked for them.

18 Q. Were they made available?

19 MR. SINCLAIR: All working papers were made
20 available for five months and more -- all working papers.
21 So if they were part of the working papers they were
22 made available.

23 Q. I am sorry, apparently my question was
24 provocative, and I am, from experience, going to try
25 hard not to be provocative. I simply put the question
26 to Mr. Stenason because my consultant suggested to me
27 that he had not seen them and now you say he should have
28 asked for them and they would have been made available.
29 Is that what it comes to?

30 A. The existence of this test was set forth
in Dr. Edwards' precis at our initial conference. In



1
2 our second conference in Montreal reference was made
3 to these studies and these are part of the working
4 papers of our branch lines, and we have made available
5 any working papers which the consultants have requested
6 for examination.

7 Q. I may as well put on record, because this
8 would seem to be the time, that when Mr. Banks was in
9 Montreal he asked to see it and he was told that it
10 was not available.

11 A. That simply is not correct.

12 Q. Then it must be some misunderstanding of
13 what he was asking for and what you were responding to.

14 MR. SINCLAIR: If Mr. Banks said that,
15 he had better tell us where, when and how, and go into
16 this matter. Then we will find out the facts. We
17 have had enough of these suggestions from Mr. Banks.

18 THE CHAIRMAN: I think this is a good time to
19 adjourn.

20 MR. SINCLAIR: We have certainly had enough
21 of these suggestions from Mr. Banks..

22 ---Luncheon adjournment.
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2 MR. FRAWLEY: Mr. Chairman, before we resume
3 cross-examination of Mr. Stenason I wish to make a
4 comment.

5 I said this morning, not long before the
6 adjournment, that I was going to be careful not to
7 say anything provocative, and then not more than two
8 minutes after I said something really provocative.
9 I think sometimes one cannot do anything about the
10 provocations - and I have lived through a great many
11 of them - but I think that I can do something about
12 this.

13 Mr. Banks came to Montreal on April 25
14 and stayed until April 29; that was pursuant to an
15 arrangement set up by the Commission. A request was
16 made on the 28th by one of Mr. Banks' associates
17 for an interview with a member of Canadian Pacific
18 staff with regard to road maintenance experience. It
19 was the intention to deal with the Canadian Pacific
20 experience with actual branch line maintenance
21 expenses on light density lines.

22 It is true that there was no indication when
23 this request was made that the experience on light
24 density lines was to be discussed. On the following
25 day, the 29th, the request was repeated, first by
26 Mr. Williams, Mr. Banks' associate, to Mr. Stenason,
27 who advised Mr. Williams at that point that no
28 further time could be given for our research work
29 on that day by himself or any personnel not already
30 committed to assist our consultants.



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2 Mr. Banks then called Mr. Stenason to dis-
3 cuss the matter with him, but he reached Mr. Sinclair.
4 Mr. Sinclair confirmed to Mr. Banks what Mr. Stenason
5 had said.

6 THE CHAIRMAN: Do I understand you to say that
7 more time could be given that day?

8 MR. FRAWLEY: No - at that time. The visits
9 generally ran in weeks and this was the end of the week
10 at that time.

11 What I have just said is the explanation
12 for my statement to Mr. Stenason this morning that
13 when Mr. Banks was in Montreal he asked to see the
14 expenses that Mr. Stenason and I had just been discussing,
15 and was told they were not available.

16 In fairness to myself I think I should add
17 that immediately after Mr. Stenason telling me it was
18 not correct I said that it must then have been due
19 to a misunderstanding.

20 That is a statement I wanted to make because
21 I thought, to the extent that provocation could be
22 dissipated - because I am essentially a person of
23 peace loving instincts -- it would be helpful to have
24 it in the record.

25 THE CHAIRMAN: Those of us who know you,
26 Mr. Frawley, know that to be true and I am glad you made
27 the statement. It is a statement which, I understand,
28 Mr. Stenason, you accept.

29 MR. STENASON: I just want to point out that
30 the reason we did not have any additional time on that



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Friday to spend with the consultants was because we were finalizing the revisions, and the staff was engaged in doing that.

THE CHAIRMAN: The revisions which became Exhibit 132? I think we can go on now and, Mr. Frawley, I only say that so far as Mr. Stenason is concerned we have been impressed as a Commission with his fairness and his responsiveness to questions by counsel.

MR. SINCLAIR: There is something I would like to say, and I certainly appreciate my friend Mr. Frawley's statement.

On the day before yesterday, or perhaps yesterday, in the transcript commencing at page 11885 and following, and particularly at pages 11888 and 11889, it was suggested that the Commission technical staff may not have been able to secure all the information that they would have liked to have had concerning the changes that were being made to the cost study.

I have spoken to Mr. Stenason and other members of the staff - the cost staff - and this certainly is not in accordance with my understanding. I do want to say, also, that we had two alternatives open to us. I said to you that I would take the responsibility for the situation. These two alternatives were first, that we could have taken the position that our evidence was before the Commission in accordance with the precis and matters of that kind which were filed with the Commission in October and presented in evidence in November and December. We could have said that the



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2 changes arising from suggestions made were largely
3 counterbalancing, if not completely so, and for this
4 reason we would not make any changes. Or we could
5 have said that any changes that were suggested were not
6 meaningful in regard to the overall result, which is
7 another way of saying the same thing. That was one
8 alternative.

9 The other alternative - and we thought this
10 was probably what would be of assistance to the
11 Commission (and there were indications in a number
12 of places in the record and in instructions that we
13 received from the Commission that that would be so)
14 having considered the suggestions and in accordance
15 with our undertaking to the Commission -- was to make
16 the necessary changes if somebody suggested a better
17 method or, of course, if somebody brought our attention
18 to an error. Accordingly, we undertook to look at these
19 various suggestions.

20 These suggestions overall have the result
21 shown in Exhibit 132, which is a decrease in the
22 variable costs of the fraction over one per cent and
23 an increase in the total cost of a fraction over one
24 per cent.

25 I took the position, in view of the Commission's
26 indicating to me that we should work these out, that
27 we should put them in an exhibit which I would file
28 and, according to the Commission's indications to me,
29 I would also deal with other suggestions not only from
30 the consultants and technical staff of the Commission



1
2 and the Commission itself.

3 If I had adopted the first alternative --
4 that is, not making revisions -- no one would have
5 suffered any disability whatsoever because Mr. Frawley
6 or Mr. Mauro, Mr. MacKimmie and Mr. Dickson, all
7 experienced counsel fully familiar with the way of
8 listing information, in accordance with their in-
9 structions could then have put the questions to the
10 witness that they had been instructed to put by their
11 clients and consultants and in accordance with their
12 general instructions.

13 If these suggestions were such as Mr.
14 Stenason or the group that work with him felt were
15 appropriate, he would have said, "Yes, that is a
16 better method" or "Yes, that is an error, there was
17 an inversion of figures." Then these consultants
18 for the grain trade or the provinces would have made
19 the changes in accordance with Mr. Stenason's acceptance
20 and put them forth in their substantive submissions
21 to this Commission. In other suggestions Mr. Stenason
22 would have disagreed with them, notwithstanding that
23 disagreement they would be completely free to make
24 those adjustments and put them forward in their sub-
25 stantive cases and attempted to defend them.

26 It can be seen, therefore, that the changes
27 made in Exhibit 132 were made to assist the Commission
28 and counsel for all parties and to make their work
29 easier, not more difficult, and it was for this reason,
30 Mr. Chairman, that I rose to say that the cost section



1
2 of Canadian Pacific and its consultants resented,
3 deeply, the suggestions and attitudes that they were
4 not cooperating in regard to these suggestions and
5 in the revisions that they made.

6 Indeed, specifically, Mr. Harter Williams
7 (of Messrs. R. L. Banks and Associates) said in Montreal,
8 "Can I have the right to go through in detail the
9 working papers on your new switching studies?" Answer:
10 "Yes." Mr. Harter Williams spent a day. He did not
11 complete and he asked us to work with him at night.
12 They worked with him at night and he took extracts
13 from these and said he wanted to have that before the
14 proceedings in Ottawa started.

15 Mr. Saunders, Mr. Banks, Mr. Woodin, Mr.
16 Harter Williams, Mr. Borts, Dr. Armstrong and other
17 consultants -- I will not go through them all -- knew
18 these changes were being made. They knew the points
19 of principle that were involved. They knew what we
20 were doing. In some cases they knew the numbers;
21 in some cases they had already done them themselves,
22 in essence, and I say that it is unfortunate. It is
23 an understandable situation that men like Mr. Stenason --
24 and it is not just Mr. Stenason but his group associated
25 with him, because this was not a one-man job -- would
26 ~~resort~~ an attitude developed after working on this
27 cost study for many months and trying to assist
28 other people in their work and in their understanding
29 of it when these expressions of attitude, from wherever
30 emanating were not in accordance with the facts or in



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accordance with the cooperative spirit they have tried to engender.

In regard to the matter to which Mr. Frawley specifically spoke, this request to meet with the maintenance expert could not conveniently be arranged. There are other pressures in the Canadian Pacific besides the matters that have been dealt with by this Commission. After all, the Company is in business and there are deadlines to meet. Some of these deadlines have been lost because of the work that has been done here and that is a normal part of business, but I did bring the engineer of track to Ottawa with me last Sunday, and on my arrival I attempted to contact the Provincial side and did so and said he was available. Since that time the points that were in the mind of Provincial consultants were put to the engineer of track. This work is underway and I expect that Mr. Bentham, who is the Engineer of Track, Canadian Pacific, will be able to answer these questions at the latest tomorrow morning, possibly late tonight.

That is the situation as it exists in regard to the specific matter and in regard to the general matters.

Page 12068 follows.



1 MR. FRAWLEY: I am obliged to Mr. Sinclair

2 for his very calm statement, and I will only say that

3 I am not inclined to enter into recrimination about it

4 at all. Let us excuse Mr. Sinclair and Mr. Stenason

5 and all of his people for the failure to give this

6 exhibit 132 to Mr. Banks. I yesterday, somewhat heatedly,

7 thought Mr. Banks, as Mr. Banks, should have been

8 supplied with a copy of exhibit number 132. I assume

9 my friend, when he handed a copy to me, probably thought,

10 "I am giving it to Mr. Banks", and that has been the

11 practice, generally speaking. However, I think this

12 was quite a different matter. Here was Mr. Banks who had

13 been working with Mr. Stenason for a period of months

14 and was vitally interested in every decimal change that

15 Mr. Stenason might want to make. Let me say in parenthesis

16 that I am not questioning the changes that were made;

17 that is perfectly all right. Mr. Stenason had good

18 reason to make the changes. Let us forget all about

19 that. The thing only has one significance now, and that

20 is that we want and we must have the working papers

21 behind the changes. That is all that that amounts to.

22 I think my friend Mr. Sinclair knows that Mr. Banks is

23 engaged in a particular kind of work; that is, the

24 preparation, with a view to ultimately submitting, his

25 own constructive cost study, and he has necessarily

26 used in the preparation of his own constructive cost

27 study certain C.P.R. numbers. Well, when the numbers

28 change, Mr. Banks' allocations and his figures, and pro-

29 bably his text, all change, and that is all we mean when

30 we say this has thrown us into considerable disorder, and



1 we have to go back and re-do a lot of work, and we have
2 to have the numbers.

3 I may as well say now and make my position and
4 Mr. Mauro's position clear, we think those could all
5 be gathered up into a tidy bundle and sent to Mr. Banks
6 in Washington, and we are not anymore to be invited to
7 go to Montreal and look at the numbers there, because
8 what has happened has changed the situation. I didn't
9 expect I would be making that kind of application. I
10 simply rose to agree with my friend, "let us have no
11 recrimination. Let bygones be bygones." What is the
12 situation now? Very simply, give us the working papers
13 and all that goes with them behind the changes in exhibit
14 number 132 and we will, much as we dislike from the
15 standpoint of dollars and cents, have Mr. Banks go back
16 to Washington and do all of the revisions he must do,
17 and it is going to take some time. However, just because
18 it was going to take time is not any reason why Mr.
19 Stenason should not have made the changes. The changes
20 were made, and I assume they were needed to be made.
21 The existing fact is that the changes are there and we
22 have to assess them, appraise them, and analyze them
23 and find out what they do to our work -- because we are
24 more concerned with our work than Mr. Stenason's work.
25 I am concerned with Mr. Stenason's work this afternoon,
26 of course. We simply want the numbers and then certain
27 consequences have to follow.

28 MR. SINCLAIR: Well, Mr. Chairman, if my friend
29 used some words -- I am not going to pick them up or
30 analyze his statement. My statement that I made to



1 the Commission was not asking to be excused for anything.
2 Let that be abundantly clear. Secondly, as I said before,
3 the working papers would be made available. They will
4 be made available from among all other working papers
5 in the same way as they have been made available in the
6 past and not otherwise.

7 THE CHAIRMAN: Well, Mr. Sinclair ---

8 MR. SINCLAIR: And I say further, Mr. Chairman, ---

9 MR. FRAWLEY: I want Mr. Mauro here; I am
10 sorry. He has got an abiding interest in this thing,
11 and he asked me could he be excused. He was sitting
12 listening to my cross-examination and thought that was
13 very uninteresting and he has a very real interest now
14 it has turned into a discussion as to how we are going
15 to get it.

16 MR. SINCLAIR: I can say further that the
17 way they have been available is a proper way and has
18 satisfied a great many people. If it has not satisfied
19 all people, it has certainly satisfied a very large
20 majority, and I understand Mr. Armstrong is asking to
21 see Mr. Stenason -- he told me this -- tonight, that
22 is all I have to say about that.

23 THE CHAIRMAN: Well, I had hoped that bearing
24 in mind the tone of both Mr. Frawley and Mr. Sinclair -- and
25 voices not were raised in either case -- that it was
26 a very happy augur, and we were going to get the thing
27 finally wound up without further trouble.

28 I understand, Mr. Sinclair, that there is
29 a meeting at 4:30 of Mr. Stenason and Mr. Armstrong.

30 MR. SINCLAIR: Sometime after court adjourns.



1 THE CHAIRMAN: Yes. In the meantime, after
2 three weeks of steady sitting, naturally there was a
3 chance of nerves of becoming a bit frayed, and then
4 there is always a chance, as I know from long experience
5 in the courts, of unfortunate things happening, and
6 probably it would have been better if exhibit number
7 132 had been submitted earlier to Mr. Banks. However,
8 that is all under the bridge now and all over with,
9 and we will see if we can proceed from there. After all,
10 we want to deal with this thing as a Royal Commission,
11 as men of good will, and we so regard all of you, as
12 men of good will, working with us and trying to do that
13 which is in the best interests of our common country.

14 MR. SINCLAIR: Very well, Mr. Chairman.

15 THE CHAIRMAN: Go ahead, Mr. Frawley.

16 MR. FRAWLEY: Q. Mr. Stenason, probably as
17 a result of what happened just before we adjourned, I
18 am going to take another run at that question I was
19 putting to you.

20 A. Fine.

21 Q. Assuming that the size related costs
22 can be shown to be less than you have computed them --
23 and I am only asking you to assume that -- would it not
24 then be true in the picture of total cost assignable
25 to grain, what was formerly \$2,383.00 (your new figure)
26 of variable cost would become roughly \$357.00 -- again,
27 a new figure -- of constant cost?

28 A. I am afraid I didn't follow your figures.

29 Q. Well, the figure of 2383 you find on
30 exhibit 67, line 14, column 5, and I understand 2383 is



1 now the figure which is the total cost assignable to
2 grain?

3 A. Yes.

4 Q. Now, I am merely putting to you that if
5 some of the solely related lines dropped out of that
6 category and dropped into not solely related lines,
7 then such a line would not be asked to bear 100 per cent
8 of variable cost, but would only be asked to bear 15
9 per cent of constant cost? That is what I am putting
10 to you, and that is true, isn't it?

11 A. Yes, that is the way the numbers would
12 work out.

13 Q. So, I am saying no more to you than putting
14 it to you again that if size related costs could be
15 shown to be less than you have computed them, then,
16 for the reason that grain is asked to bear only 15 per
17 cent of constant cost as against 100 per cent of variable
18 cost, then the figure of total cost assignable of
19 \$2,383.00 of variable cost would become roughly \$357.00
20 of constant cost?

21 A. Oh, I see: you are taking 15 per cent
22 of the 2383?

23 Q. That is right.

24 A. Yes.

25 Q. Now, a further discussion of that:
26 would this change not be of this order, which is just
27 probably putting the same to you another way: your variable
28 cost figure of \$2,383.00 per track mile, which you will
29 find, as I have said a moment ago, in exhibit 67, line
30 14, column 5, would become \$357.00 of constant cost;



1 that is to say, 15 per cent of 2383, the figure which
2 you will find on exhibit 70, line 12, column 5? That
3 is, as I say, just putting to you what I put to you
4 a moment ago; is that right?

5 A. Yes.

6 Q. Now, is it not true that the unit cost
7 co-efficients used in exhibits 63 to 66 inclusive apply
8 with equal validity to grain and other types of freight
9 traffic?

10 A. No, that is not correct, Mr. Frawley.

11 Q. That is not correct. Well then, what
12 methods did you use - and I would refer especially to
13 the figure of \$1,170,000.00 in exhibit 67, line 21,
14 column 4 -- \$1,170,000.00? If you say that my statement
15 to you is not correct, then please tell me what methods
16 you did use to arrive at \$1,170,000.00?

17 A. Well, are you referring -- your first
18 question, I thought, turned on whether all of the co-
19 efficientes or all of the units costs in statements 63/4/5
20 and 6 were applicable to all traffic. Now, that is
21 not correct because of such things as fuel and crew
22 wages which are on a train run basis, and various other
23 unit costs which are reflected here, including grain
24 doors.

25 Q. Could you answer my question leaving
26 fuel and crew wages aside, and then, will you tell me
27 whether it is not true that the unit cost co-efficients
28 used in those exhibits apply with equal validity to
29 grain and other types of freight traffic?

30 A. The variable cost co-efficients would.



1 Q. The variable cost co-efficients. My
2 words were, the unit cost co-efficients?

3 A. Well, the unit co-efficients of variable
4 cost.

5 MR. CUMMING: Is there a difference?

6 MR. STENASON: Well, yes; the average cost
7 may be higher than the unit variable cost.

8 THE CHAIRMAN: Did you hear that Mr. Frawley?

9 MR. FRAWLEY: No, I did not, sir.

10 MR. STENASON: I said, there was a difference,
11 in answer to a question of Mr. Cumming, and that was that
12 the average cost would be higher than the unit variable
13 cost.

14 MR. FRAWLEY: Q. Well, would you answer
15 me this: if new numbers were required for the reasons
16 you have given in exhibit number 132 why was the figure
17 of \$1,170,000.00 needed? You see, there was no change
18 in the figure \$1,170,000.00.

19 A. Yes, that is correct. I had a look at
20 a number of these unit costs which did change, and the
21 change was so small that I did not make an adjustment.
22 Now, again, I could only test the effect of the change
23 and it would certainly not have a significant effect
24 on the \$1,170,000.00.

25 Q. I suppose you would agree it is a case,
26 again, of just some loss of precision?

27 A. Well, it was a matter of having to spend
28 some very considerable time reworking a number of these
29 branch line studies, and the amount involved would be
30 extremely small. If you like we could attempt to make an
explicit estimate on it



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2 Q. I simply put it to you, you have been
3 quite a frank witness, it really means some loss in
4 precision.

5 A. A very tiny loss indeed.

6 Q. You are determined to qualify it and
7 minimize it as much as possible but I say it is some
8 loss of precision, is it not?

9 A. There is a small loss of precision,
10 if I thought it was a large amount as a result of the
11 tests I would say so.

12 Q. If you love minutiae, you stick to it.
13 Now, Mr. Stenason, will you look at Exhibit 132. Until
14 ten days ago it was valid to assume by your methods that
15 the cost of money for investment in freight cars was
16 related to car miles. Looking at page 6, if you look at
17 page 6 of Exhibit 132, item 19, cost of money, you
18 see there quite plainly that you have restated it from
19 a car mile, car day basis to a car mile basis?

20 A. It was restated from a car mile basis.

21 Q. To a car day basis?

22 A. To a car day basis. This change arose
23 from the work of our own consultants when it was brought
24 to my attention that the practice in the United States
25 was to treat car investment on the basis of car days
26 since this was a better measure of availability of
27 investment rather than car miles.

28 Q. Have you got anything further to say by way
29 of explaining how the change in the advocacy of the
30 cost of money to determine cost would change in your
philosophy or to warrant the changing from a distance



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2 basis to a time basis?

3 A. Well, the factor I have just mentioned
4 because we believe it was brought to our attention by
5 our consultants that this was a better way of reflecting
6 the cost of money.

7 Q. Very well. Now, will you look at page
8 7 of Exhibit 132 where again you indicate a change in your
9 methods when you say:

10 "Accordingly a new procedure was applied by which
11 constant costs were derived from total railway
12 operating expense on variable costs, passenger and
13 freight."

14 Mr. Stenason, will you be good enough to
15 detail for me the new procedure to which you refer there?

16 A. Yes, that is contained in one of the
17 revised statements that we provided yesterday, it is
18 Exhibit No. 69 revised and I think the steps are set out
19 there. We have on it the system railway operating
20 expenses in 1958, deductions of the total freight
21 variable expense, passenger variable expense, income
22 tax, accounts 237, 241 and 265 which are special accounts,
23 they are wharves, grain elevators and other structures.
24 We have also deducted the size related costs which are
25 part of the constant and from that we have arrived at
26 the system constant expense in so far as the constant
27 operation of the expenses is concerned, cost of money
28 is also shown.

29 Q. Would you mind telling me how that
30 differed from what you did before?

A. What we did before was take the constant



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2 in the regression equation which, in my case, was based
3 on 27 divisions, and extend that constant on the basis
4 of the total number of divisions on the system to reflect
5 the system operating expenses. Now, when you come to
6 such items of expense as station expense where you tend
7 to have a greater amount of expense in the terminal
8 divisions, and the terminal divisions have been excluded
9 from the analysis, that procedure of arriving at system
10 costs and expense based on the constant in the regression
11 equation underestimates the total expense in the account,
12 in the system.

12 Q. Now, still at page 7 of Exhibit 132 you
13 refer there to the revision of miles of track to reflect
14 miles of track maintained rather than operated and
15 eliminated joint section mileage. Would you give me the
16 miles of track maintained? Have you got that figure?

16 A. I have to add back the solely related,
17 I can give it to you in a minute. It is 23,427.7.

18 Q. Would you give me the number of miles
19 of track operated?

20 A. 24,202.9. That was in 1958. This figure
21 of miles of track maintained was based on the average
22 of the three years, there is a minor difference.

22 Q. 24,202.9?

23 A. Yes.

24 Q. Will you give me the joint section mileage?

25 MR. SINCLAIR: Surely you have got them
26 because you have the same report. If you have the
27 figure, why not put it to him and ask him if it is
28 correct. You have the same report that he is reading
29
30



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2 from and we are just turning up the same documents here.
3 You are working from the annual report to D. B. S.,
4 Board of Transport.

5 MR. FRAWLEY: I do not know. Mr. Sinclair,
6 I am just asking for the joint section mileage.

7 MR. SINCLAIR: I think there is a shorter
8 way to do this.

9 THE WITNESS: I think I have the figure here,
10 tracks operated under trackage rights, 775.2.

11 MR. FRAWLEY: Q. Is this joint section
12 mileage the same as miles of track operated under joint
13 trackage rights?

14 A. Yes, my information is it is the same.

15 Q. Let me put this to you, do you mean when
16 you use that expression, miles of track, on which joint
17 facilities -- for instance, where the Canadian Pacific
18 operate over Canadian National trackage?

19 A. This 775.2 miles would be trackage over
20 which Canadian Pacific operates but it does not maintain
21 the trackage. The trackage could be maintained by
22 Canadian National or whatever road was involved.

23 Q. For example, does this eliminate the
24 trackage from Mattawamkeg to Vanceboro over the Maine
25 Central?

26 MR. BENTHAM: It does not include that track.

27 MR. FRAWLEY: That track is not eliminated?

28 MR. BENTHAM: No.

29 MR. SINCLAIR: Mr. Bentham is the engineer
30 of track for Canadian Pacific.

MR. BENTHAM: What I mean by that is, the



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2 figures given by Mr. Stenason do not include the joint
3 section mileage. That is, the miles of track maintained
4 figures do not include the joint section mileage.

5 MR. FRAWLEY: Does that include the trackage
6 from Toby to Northway?

7 MR. BENTHAM: No, sir, that would be included
8 in miles of track operated but not in miles of track
9 maintained.

10 MR. FRAWLEY: And in the expression joint
11 section mileage in Exhibit 132. And, would you mind,
12 in view of that answer, being a little more specific
13 and tell us what the expression "Joint Section Mileage"
14 comprises?

15 MR. BENTHAM: Joint trackage there,
16 Mr. Frawley, is trackage which is jointly owned by the
17 two railway companies, it is not exclusively owned by
18 one railway company or the other company.

19 MR. FRAWLEY: You must have some examples of
20 that which might help to clarify it.

21 COMMISSIONER MANN: Would the T. H. & B.
22 be in that?

23 MR. SINCLAIR: No.

24 THE CHAIRMAN: Northern Alberta?

25 MR. BENTHAM: No, that is a separate company.

26 THE WITNESS: Those are separate corporations,
27 sir. The run from Rosedale to Trefoil in Alberta is
28 an example of that. I think that constitutes the
29 major portion of joint trackage on Canadian Pacific.

30 MR. FRAWLEY: You say from Rosedale to
Trefoil?



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2 MR. BENTHAM: That is right.

3 MR. FRAWLEY: That is just a very few miles.

4 MR. BENTHAM: Well, there are very few miles
5 of joint trackage on Canadian Pacific. Now, I think
6 maybe there was a little misunderstanding before; that
7 775 miles which Mr. Stenason gave you was not what we
8 are now referring to as joint trackage, that is trackage
9 over which the Canadian Pacific has running rights.

10 MR. FRAWLEY: Mr. Bentham, I am really con-
11 cerned with having some clarification of the words
12 "Joint Section Mileage" which have been eliminated;
13 page 7 of Exhibit 132 states that and that is what I
14 am concerned with. As a matter of fact, if it would
15 not be too much trouble, a complete breakdown of the
16 775.2 would clear it all up.

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2 MR. BENTHAM: And the mileage which is con-
3 tained in the 775.2.

4 Q. That is all we know. It is just joint
5 section mileage, 775.2. Now, it seems to me, Mr. Bentham,
6 you are qualifying that and explaining it to some ex-
7 tent.

8 MR. BENTHAM: Yes. A breakdown of that
9 can be given to you, sir.

10 Q. I am only suggesting it because, frankly,
11 I think that just indicates the difficulty of reconcil-
12 ing this language. Let me put one more thing to
13 Mr. Stenason or Mr. Bentham. You said a moment ago you
14 had 23,427.7 miles of track maintained, and you said
15 that was a three-year average and you said the miles of
16 track operated were 24,202.9, which was a 1958 actual.
17 So the miles used in the statement couldn't be reconciled;
18 it would be very difficult to reconcile the return
19 you make to D. B. S.

20 MR. STENASON: I am sorry, Mr. Frawley, if I
21 misled you. Both figures were 1958. I was wrong.

22 MR. BENTHAM: That is reported in the
23 D. B. S. report and are reconcilable with that document.

24 Q. Now, Mr. Stenason, will you go to the
25 joint submission, exhibit 45, paragraph 81.

26 A. Yes, I have that, Mr. Frawley.

27 Q. Now, this is a very short paragraph which
28 simply says:

29 "The railways' decision is that the problem of
30 matching revenue with the variable expense of
operating passenger trains is a managerial one.



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2 "Therefore, the passenger deficit has not been
3 taken into account in considering the total cost
4 of moving the study traffic."

5 In the same context you might want to look at
6 your own statement, your own cost study statement at
7 page 22, and that is a paragraph of about the same
8 size:

9 "The railways' position is that the problem of
10 matching revenue with the variable expense of
11 operating passenger trains is a managerial one.
12 Passenger traffic is incremental traffic.
13 Therefore, the passenger deficit has not been
14 taken into account in considering the total cost
15 of moving the study traffic."

16 Now, will you tell me this, Mr. Stenason?
17 What I might call the July submission -- does it show
18 anything of the constant cost of passenger?

19 A. What do you mean by the constant cost of
20 passenger?

21 Q. Will it show anything about the constant
22 cost of operating passenger?

23 A. I don't really know what you mean.

24 Q. If I use the word "fixed" costs, would
25 that be more helpful to you?

26 A. No. What expenses do you have in mind?
27 Are you talking about specific categories of expenses?

28 Q. Yes, I am talking about such expenses
29 as the constant portion of the president's salary,
30 for instance.

A. The treatment of traffic general expenses



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2 -- and this is where the general expenses are involved
3 -- are separated between passenger and freight service
4 on the basis of an estimate of avoidable cost of passen-
5 ger service. Now, that particular special study is
6 based on an analysis of duties in a number of our
7 offices, clerical duties, as between passenger and
8 freight service, and the overhead expenses, the general
9 offices, were based on the dollars of clerical.
10 The dollars of clerical were the larger of the two.

11 Q. And that assumes that overhead expenses
12 are completely variable?

13 A. It assumes that overhead expenses are
14 as variable as total operating expenses.

15 Q. You told Mr. MacKimmie yesterday that
16 freight bears all the constant costs and that passenger
17 should not bear any constant cost. That is what you
18 said yesterday.

19 A. Yes.

20 Q. And I put it to you that that is a double
21 standard of costing?

22 A. In what way?

23 Q. I put it to you that that is a more
24 strict costing of grain than of the other allegedly
25 deficit traffic, namely, passenger.

26 A. What do you mean by "more strict costing"?

27 Q. You are putting more cost on grain than
28 on passenger, the kind I am speaking of?

29 A. No, I wouldn't say so. Oh, in so far
30 as the constant portion of these expenses is applied
against freight, and in so far as grain is part of total



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2 freight, that is correct, yes.

3 Q. I put it to you that the president's
4 salary, using that only as an example, part of that is
5 regarded as a constant cost?

6 A. Yes, that is correct, and it is so regarded
7 in the study.

8 Q. And I put it to you that none of it is
9 assigned to passenger and that all of it is assigned
10 to freight?

11 A. That is correct, the constant portion
12 only.

13 Q. Now, Mr. Stenason, will you, just for
14 confirmation of a few figures, look at your revised
15 exhibit 69, and will you look at the fifth number in
16 the right-hand column, and that number is \$8,419,981?

17 A. Yes.

18 Q. Now, does that figure not include the
19 constant portion of the president's salary which is
20 chargeable to grain?

21 A. It is a portion of it; it is the constant
22 portion. It would be included.

23 Q. It includes the constant portion of the
24 president's salary which is charged to grain?

25 A. Yes.

26 Q. Now, still looking at Exhibit 69 revised,
27 there is a figure there of \$230,807,578. Now, that
28 is the total system freight variable expenses?

29 A. Yes.

30 Q. Now, I ask you a question: Is this figure
explained by your revised working paper 35?



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2 A. Yes, it is, sir.

3 Q. Could you let me have that revised 35?

4 A. At this moment?

5 Q. Yes, if you would be so kind.

6 MR. SINCLAIR: Do you want the witness to
have it or do you want it?

7 MR. FRAWLEY: Oh, I would like to have it.

8 Q. Now, Mr. Stenason, your Exhibit 69 shows
9 that you used 15 per cent to arrive at the portion of
10 system total constant cost which should be borne by
11 grain?

12 A. Yes, 15.013 per cent.

13 Q.. You obtained that 15 per cent by relating
14 grain variable cost to total system freight variable
15 cost?

16 A. Yes, that is correct.

17 Q. And you excluded total system passenger
18 variable cost in your computation to get your percentage?

19 A. No, not to get the percentage. The
20 percentage was arrived at directly by computing the
21 variable system operating expenses, the grain freight
22 operating expenses, excluding solely related and just
23 taking a ratio of one to the other. The total constant
was arrived at by excluding the variable passenger
as well as the freight variable.

24 Q. Does what you have done in Exhibit 69
25 revised constitute a change from what you did before?

26 A. No, sir.

27 Q. Is it identical to what you did in 69
28 before it was revised?
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2 A. Do you mean were the procedures the same?

3 The procedure was to distribute the constant cost in
4 the ratio that grain variable was to freight variable.
5 The principle was the same.

6 Q. Mr. Stenason, how could you distribute
7 constant cost on the ratio between grain variable and
8 total freight variable without excluding passenger?

9 A. Well, passenger is automatically excluded
10 from the way in which the numbers are developed.

11 Q. Is it not true that the net effect of
12 your method, exclusion of passenger variable, is to make
13 grain appear to be more costly and passenger less costly?

14 A. No, I don't say that at all -- only in so
15 far as a portion of the constant is not allocated against
16 the passenger service.

17 Q. What you have done is to measure the
18 deficiency on grain on a full cost basis, whereas the
19 passenger deficit will be measured on an out-of-pocket
20 basis.

21 A. Our treatment of the passenger deficit
22 will not include any element of the constant cost.

23 Q. It will be measured on an out-of-pocket
24 basis?

25 A. Essentially on an out-of-pocket basis.

26 Q. You say essentially. Is that a word
27 of qualification, or do you feel you simply cannot accept
28 my suggestion that your passenger deficit will be measured
29 on an out-of-pocket basis?

30 MR. SINCLAIR: What does counsel mean by



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2 "out-of-pocket basis"?

3 Q. I suggest that the use I am putting it to
4 you is the same use that the I. C. C. puts it?

5 MR. SINCLAIR: What use is that?

6 MR. FRAWLEY: My friend is not cross-examining
7 me.

8 MR. SINCLAIR: No, but it is my duty to under-
9 stand the question.

10 THE CHAIRMAN: We will have a five-minute
11 recess.

12 ---Short recess.

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15 (Page 12094 follows)
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2 Q. On Page 26 of Exhibit 45, the Joint
3 Submission, there is a paragraph which I will read
4 to you, paragraph 82.

5 "The method used to apportion the constant
6 cost is to pro-rate the constant expense to
7 each segment of freight traffic on the basis
8 that that segment of variable cost is to total
9 freight variable cost."

10 Can you tell me whether or not that is the
11 way the railway prices its agreed charges?

12 A. As I mentioned this morning to counsel
13 for British Columbia, there are two respects in
14 which the treatment of constant in the grain study
15 differs from that in studies that we do for the Traffic
16 Department. We include the variable passenger deficit
17 and we also apportion the constant costs on a
18 ton and ton mile basis in respect to our everyday cost
19 studies.

20 Q. I put it to you, Mr. Stenason, that
21 if you make grain pay, or if you propose to make
22 grain pay 100 per cent of variable and 15 per cent
23 of constant, you have a more rigid pricing for grain
24 than you have for agreed charges?

25 A. What do you mean by "more rigid"?

26 Q. I put it to you that your agreed charges
27 will meet the standards required by returning to you
28 all of the out-of-pocket -- which I might call "variable" --
29 plus some portion, however, small, of constant. Is
30 that not the standard which you understand must be



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2 applied to make an agreed charge a valid agreed
3 charge?

4 A. When we do studies for the Traffic
5 Department we report to them the variable and full
6 cost, the pricing is done by the Traffic Department
7 in Canadian Pacific. The extent to which agreed
8 charges or some agreed charges may be based upon
9 variable costs or total cost or more than total cost
10 or somewhere between variable and total cost, is
11 something to which I cannot speak.

12 Q. Before you hide behind this pretense -
13 and I use the word "pretense" in its very proper sense ---

14 A. It is not pretense; I simply do not know
15 the way in which the Traffic Department does it.

16 Q. Stay with me a moment and let us see
17 if we cannot work something out. You must be aware
18 that when a competitive rate is challenged or when
19 an agreed charge is challenged the test applied is
20 that it must primarily be sufficient to return the
21 out-of-pocket or, if you will let me use the phrase,
22 though it is not so exact, variable cost?

23 A. That is correct.

24 Q. It is correct? That is, it must go
25 further; it must also return some portion of the cost
26 that is sometimes called the overhead cost?

27 A. You may know more about law here than
28 I do. I am not that familiar with it.

29 THE CHAIRMAN: What you say is that the amount
30 of constant cost is not determined by you, you just give



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2 the figures and then the Traffic Division determine
3 that?

4 A. Yes, that is correct.

5 MR. FRAWLWY: I simply put it to you -- and
6 I will not explore that any further because it is
7 probably valid on your part to stay in the cost section
8 and not to proceed to know all about the pricing of
9 transportation -- that if you are seeking to have
10 export grain pay 100 per cent of variable plus 20
11 per cent of constant, you are necessarily applying
12 a more rigid pricing policy than your Traffic Department
13 follows when they are pricing competitive rates
14 under agreed charges.

15 A. Grain is of a different characteristic
16 than normal competitive rates or agreed charge
17 traffic.

18 Q. Your normal competitive rate?

19 A. When you are dealing with a category
20 of traffic which makes up 40 per cent, 43 per cent
21 total volume moving in the Prairie Pacific Region,
22 23 per cent in the system, you are dealing with far
23 different a situation than when you are dealing with
24 an agreed charge covering the movement of, perhaps,
25 100 cars of steel and pipe from Eastern to Western
26 Canada.

27 Q. I simply wanted to be quite clear.

28 I want it quite clearly on the record of this Commission
29 that you are quite content and you feel you can justify
30 asking grain moving in Western Canada to export positions



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2 to pay 100 per cent of variable cost and 20 per cent
3 of constant cost as against a rate that will move a
4 highly valued manufactured commodity on an agreed
5 charge for a total of out-of-pocket cost plus some
6 small -- not 20 per cent, but smaller -- per cent of
7 constant cost. If that is the result, that is a perfectly
8 fair situation you say?

9 A. This involves an assumption on your
10 part that agreed charges bear only a small portion
11 of constant cost. I do not know that to be a fact.

12 Q. It would be futile for me and you to
13 argue back and forth on the test the Board has applied
14 in cases, and I do not want to get into that for a
15 moment. For the sake of my question I just ask you
16 to assume that it is the test applied, and I simply
17 put it to you that you must agree with me, for
18 reasons you advance properly, but you must agree with
19 me that you are asking grain moving to export
20 positions in Western Canada to pay on a more rigid
21 basis than the agreed charges that have been negotiated,
22 may be required to be negotiated -- there is a whole
23 world of considerations, but I am looking at the end
24 result. Now you say, "Well that is the situation,
25 Mr. Frawley" and ----

26 A. Again, Mr. Frawley, I just do not know
27 the extent to which agreed charges reflect total cost
28 or variables.

29 Q. That is right. You must leave it there
30 because you are quite right when you said I was



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2 basing my question on an assumption. However, if
3 the assumption is valid, then I take it the conclusion
4 is equally valid. I do not have to be a classical
5 economist to come to that conclusion.

6 A. I admire the classical economists.

7 Q. I want to read something to you from the
8 Canadian National's submission. I suppose you will not
9 mind my doing that.

10 MR. SINCLAIR: On grain?

11 MR. FRAWLEY: The cost study, Page 31, on
12 grain.

13 Q. Then you will see by the heading "Yard
14 Switchmen",

15 "Only that portion of yard switchmen expense
16 which occurred at the Lakehead where it is
17 directly related to the operation of the
18 hump switching of grain, was included in
19 the variable cost. This expense at the
20 Lakehead in 1958 was \$19,504.00."

21 What did Canadian Pacific do, Mr. Stenason?

22 A. On yard switchmen expenses?

23 Q. Yes. I asked you to tell me what you
24 did with the item "yard switchmen expenses"?

25 A. Insofar as yard expenses are concerned,
26 Mr. Frawley, we secured the expenses in each division
27 for yard switchmen, yard locomotives, fuel and power
28 and applied a regression analysis using independent
29 variable yard switching miles. This was tested
30 for goodness of fit in Western Canada against the



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2 actual expense.

3 Q. Can you tell me what it threw on grain?

4 A. For what? Total yard expenses?

5 Q. Did it throw more or less on grain?

6 MR. SINCLAIR: Are you asking only with regard
7 to yard switchmen at Fort William?

8 MR. FRAWLEY: You see what the Canadian
9 National says, Mr. Sinclair, "Only that portion of
10 yard switchmen expense which occurred at the Lakehead
11 was included in the variable cost." If I read that
12 right that is the only yard switchmen expense that
13 was put upon the variable cost by Canadian National.
14 That is the way we read it.

15 MR. SINCLAIR: I do not know, Mr. Chairman.
16 I would read it a little differently. I would say that
17 what that means would be -- Mr. Bandeen is here, but
18 I will make a suggestion -- a type of switchman that
19 is assigned as an extra switchman in the yard having
20 to do with the movement of grain in the Pacific Terminal.

21 MR. FRAWLEY: We simply want to know; we
22 are subject to error and correction.

23 MR. SINCLAIR: I am told that is right.

24 THE CHAIRMAN: Perhaps Mr. Bandeen can clear
25 it up now.

26 MR. BANDEEN: I am informed it is a switch
27 tender referred to here and we have them at the Lakehead
28 in connection with the switch yard.

29 MR. STENASON: In classification of the accounts
30 the following description appears.



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2 MR. FRAWLEY: 379?

3 A. Yes.

4 "This will include the pay of employees in
5 yards where regular switching service is
6 maintained who are engaged in the operation of
7 yard switches and signals, including interlockers,
8 used solely and principally for the government
9 of all movement of locomotives and trains
10 between the main and yard tracks, movement of
11 locomotives between yard tracks and engine
12 house and yard switching movements."

13 This is a relatively large account. Of course,
14 these people are required in the operation of virtually
15 every yard.

16 Q. If you would not mind, I will interrupt
17 and ask Mr. Bandeen something just to clarify.

18 Mr. Bandeen, looking at account 379, you
19 used the same account as Mr. Stenason.

20 MR. BANDEEN: I do not have a classification.

21 MR. FRAWLEY: A moment ago you said something
22 about switch tenders, did you not?

23 MR. BANDEEN: Yes, they are at the Lakehead.

24 Q. Would you mind repeating what it was you
25 said. It is just a matter of clearing this up for us,
26 Mr. Bandeen.

27 MR. BANDEEN: Yes. You will notice under
28 account 379 that there is a list of employees, and the
29 switch tender is the one we are referring to here.
30 As I understand it we only have them at the Lakehead



1
2 in the western region and they are only in connection
3 with the hump yard which is operated there. As I
4 explained, it is only operated for grain.

5 Q. How about the other employees you see
6 listed there? There are ten kinds of employees there,

7 MR. STENASON: While Mr. Bandeen is looking
8 up the answer, we find we have a cost included of
9 approximately \$50,000.00. This is applying overall
10 proportion -- it is only a rough estimate.

11 Q. You have a figure of what?

12 A. Approximately \$50,000.00, but this is
13 very rough.

14 MR. BANDEEN: We have checked them; we have not
15 put any other expenditures that occur in the account
16 379 against the grain in the western region.

17 MR. FRAWLEY: That is really what you said on
18 Page 31.

19 MR. BANDEEN: Yes.

20 MR. FRAWLEY: That is what we thought you said,
21 and for a moment there was just a little confusion.

22 Q. Now Mr. Stenason, my question is still the
23 same. What did Canadian Pacific do and why?

24 A. Canadian Pacific developed a regression
25 analysis on yard expenses which include all of
26 account 379 and, again just reading from the classi-
27 fication of accounts:

28 "This will include the pay of employees in
29 yards where regular switching service is
30 maintained who are engaged in the operation of



1
2 yard switches and signals, including interlockers,
3 used solely and principally for the government
4 of all movement of locomotives and trains
5 between the main and yard tracks, movement of
6 locomotives between yard tracks and engine
7 house and yard switching movements."

8 Of course this is a normal operation of a
9 yard, and some of this expense would have been involved
10 in the movement of the study traffic.

11 Q. I suggest that you, having had resort
12 to your sophisticated multiple regression procedure,
13 come up with an expense of more than double the
14 Canadian National expense for yard switchmen cost
15 on the export grain. That is what it looks like.

16 A. I feel this is a valid treatment of the
17 expense.

18 Q. I am sure you do. I just want to get
19 the yard switchmen cost down to the irreducible
20 minimum.

21 MR. SINCLAIR: I do not know about that comment.
22 I do not know how many days, and I do not know whether
23 Mr. Frawley does, they use the hump yard on Canadian
24 National for the movement of grain or how many switch
25 tenders they had on the hump, how many bushels they
26 put over the hump, and a lot of matters like that
27 which he should know before he can say "I want to
28 get it down because it happens to be three times
29 higher"; maybe three times more traffic was moved,
30 I do not know.



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12103
Stenason cr.-ex
(Frawley)

1
2 MR. FRAWLEY: It sounds as though my friend
3 is giving some evidence on behalf of Canadian National.

4 MR. SINCLAIR: I am just saying that you are
5 putting to this witness questions which I do not
6 think are fair.

7 MR. FRAWLEY: I have too much to do and too
8 little time in which to do it to get into a side
9 argument of this kind. We simply have \$5,000.00
10 applied to here for yard switchmen for export
11 grain and you say \$19,000.00 is applied to Canadian
12 National for yard switchmen for export grain, and
13 that is just what I am going to deal with.

14
15 Page 12104 follows.
16
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1 A. I would like to point out also that
2 Canadian Pacific has a good deal more yard work than
3 does Canadian National in connection with grain and
4 grain products for two reasons: first of all, we have
5 a greater volume and, secondly, we have much more milling
6 in transit work which has a higher switching content.

7 Q. Would you venture an opinion as to whether
8 it is 100 per cent more?

9 A. Well, you have to weight in the milling-
10 in-transit here, which I haven't done, before I can
11 make any conclusion.

12 Q. You would not venture an opinion as to
13 whether it would work out on a ratio of 19 to 55?

14 A. Another reason is that Canadian Pacific
15 has three hump yards in western Canada as compared with
16 one for Canadian National.

17 Q. Where are the three hump yards for the
18 Canadian Pacific?

19 A. Calgary, Winnipeg and Fort William.

20 Q. Would you mind going to the matter of
21 freight loss and damage, and I find by consulting the
22 Canadian National cost study, Mr. Bandeen's statement
23 -- this is page 33: Mr. Bandeen says to the Commission
24 the freight claims - \$131,610.00 paid for study traffic
25 during 1958 was obtained by adjusting the total grain
26 claims so as to allow for claims pertaining to domestic
27 grain. So, the Canadian National is seeking to put upon
28 grain moving to export positions in western Canada
29 \$131,610.00. Is that the way you would read that?

30 A. Yes, sir.



1 Q. And I put it to you that if you look at
2 your revised exhibit number 65, line 31, column 10,
3 that you are putting upon export grain, under the
4 heading of Freight Loss and Damage, the sum of \$315,205.00?

5 A. That is correct.

6 MR. SINCLAIR: Mr. Chairman, I think that my
7 friend Mr. Frawley should advise the witness if the
8 investigations made by his consultants -- that the same
9 items are in the headings. Is he comparing like with
10 like? We have a witness in the box who dealt the
11 Canadian Pacific study. There is another witness who
12 dealt with the Canadian National study, but Mr. Frawley
13 has dealt with both.

14 THE CHAIRMAN: Are you comparing like with
15 like?

16 MR. FRAWLEY: I am simply putting to the
17 witness whether or not the statement that he is making
18 is exhibit 65 -- I am quite certain it is a correct
19 statement -- amounts to the fact that you are seeking
20 to allocate, and you have allocated for your cost
21 purposes, a loss and damage item of \$315,205.00 -- and,
22 so far so good; that is correct, isn't it?

23 A. That is correct.

24 Q. That is correct. The witness is saying
25 it is correct. What Mr. Sinclair is saying I don't
26 know, and I couldn't care less.

27 MR. SINCLAIR: Mr. Chairman, it is in evidence
28 this was direct cost.

29 THE CHAIRMAN: Did you use the same basis in
30 this connection as Mr. Bandeen?



1 MR. STENASON: I am not certain as to Mr.
2 Bandeen's basis, but our procedure was as follows: we
3 have segregated in the expenses of the company the
4 loss and damage for each category of traffic. We developed
5 from this statement the loss of damage on grain. We
6 separated this loss and damage on grain figured between
7 domestic grain and western Canadian statutory and related
8 grain in western Canada and grain in eastern Canada,
9 and consequently, our figure is the best estimate we
10 have as to the loss and damage expense on statutory
11 and related grain taken directly out of the basic records
12 of the company.

13 THE CHAIRMAN: To clear that up, Mr. Bandeen,
14 is that the same measure you used?

15 MR. BANDEEN: No, we did a slightly different
16 measure. Ours are the actual loss and damage claims
17 paid, and we have none of the clerical or what you might
18 call overhead expense included in this. In other words,
19 there is an office and clerical expense attached to the
20 freight claims department and we have allocated none of
21 this to grain because we were unable to separate it
22 from the other claims. So, this is the minimum or the
23 actual payments.

24 COMMISSIONER GOBEIL: Should it not have been?

25 MR. BANDEEN: If we had had any way of doing
26 it, we would have done it.

27 MR. FRAWLEY: Q. Mr. Stenason, if you take
28 20 per cent off for your overhead and clerical cost that
29 Mr. Bandeen has been talking about, what would that leave
30 your \$315,000.00?



1 A. Well, one fifth of \$300,000.00 is
2 \$64,000.00, and that would come down to about \$250,000.00,
3 approximately.

4 Q. After that very rough piece of arithmetic,
5 we have the Canadian Pacific charging against export
6 grain in western Canada \$250,000.00, and Mr. Bandeen
7 \$131,000.00?

8 A. You do not have the Canadian Pacific
9 charging \$250,000.00. The Canadian Pacific is charging
10 the amount of loss and damage on statutory grain including
11 the clerical expenses which were necessary to handle
12 the processing of the claims.

13 Q. You are charging the actual amounts paid
14 out under this item plus an administration item, or
15 whatever you want to call it, to cover the cost of
16 handling the claims?

17 A. That is correct.

18 Q. All right. I am simply putting it to
19 you, what would that amount to -- this clerical cost
20 of handling the claims?

21 A. 23.8 per cent.

22 Q. So, if you take 23.8 per cent off; in
23 other words, what about 77 per cent of \$315,000.00?

24 A. That is \$242,000.00.

25 Q. All right, can we compare \$242,000.00
26 against the Canadian National's \$131,610.00?

27 A. The two would be comparable.

28 Q. Yes. Can you explain the difference?

29 A. One part of this difference could be
30 related to the greater volume of grain which Canadian



1 Pacific handles and the difference here is another
2 20 per cent; another part of it might be explained by
3 the greater volume of milling in transit traffic handled
4 by Canadian Pacific in which I suspect the loss claims
5 would be higher since it is a more valuable product.
6 But, again, these are the dollars in our accounts.

7 Q. Now, Mr. Stenason, will you please go
8 to another matter. I understand that you used your
9 western Canadian and eastern Canadian experience to
10 develop the degree of variability of cost attaching
11 to grain?

12 A. Well, in so far as the regression
13 analyses were concerned, they were based on all divisions
14 in the system.

15 Q. That is, the extent to which costs vary
16 with traffic, you used both your western and eastern
17 experience?

18 A. For certain accounts: the road maintenance
19 accounts and some of the overhead expenses.

20 Q. Are there not obvious differences in
21 many respects between your experience of western Canada
22 and eastern Canada, and let us look at some of them.
23 In the physical characteristics of the railway there is
24 a difference between western Canada and eastern Canada?

25 A. What do you mean by "physical characteris-
26 tics"?

27 Q. Well, how about curvature?

28 A. We have significant curvature in eastern
29 Canada and we have significant curvature in western Canada.

30 Q. You haven't got any Lake Superior in



1 western Canada?

2 A. We have curvature in the mountains.

3 The Kenora division has extensive curvature. The
4 Schreiber division in the east has extensive curvature.
5 The Brownville division in the Maritimes, which passes
6 through Maine, has extensive curvature. The Sudbury
7 division has extensive curvature.

8 Q. Have you had grades in eastern Canada
9 to compare with the grades in the Selkirks -- in the
10 mountains? I am speaking of the main line.

11 A. We have grades in eastern Canada. I
12 don't believe we have the extensive grades that you
13 would find at Field, B.C., where we have a 2.2 per cent
14 grade. But, again, grades are by no means universal
15 in western Canada -- one or two divisions.

16 Q. No, but there are certainly some grades
17 in the mountain areas?

18 A. Yes, there are grades in the mountains.

19 Q. I put it to you there is greater passenger
20 density in the east than in the west?

21 A. There is a greater volume of passenger
22 service.

23 Q. There is greater degree of urbanization
24 in the east than in the west?

25 A. In eastern Canada as a whole, Mr. Frawley;
26 but, Canadian Pacific has lines in northern Ontario
27 which are in eastern Canada which certainly could not
28 be said to pass through urban areas.

29 Q. Well, you have some lines, you say, in
30 northern Ontario?



1 A. Yes; Schreiber and Sudbury divisions.

2 Q. That is just the main line running from
3 Schreiber to Sudbury; that is your northern Ontario
4 section that you are speaking of?

5 A. Yes, that is correct. New Brunswick,
6 the Brownville division -- the areas are not particularly
7 highly urbanized.

8 Q. New Brunswick has a little bit of every-
9 thing; perhaps a minimum of big cities -- I would agree
10 with you. But, you have got a lot of urbanization be-
11 tween Montreal, Ottawa and Toronto?

12 A. Yes, we do. We have a lot of urbanization
13 between Calgary and Edmonton.

14 Q. You have relatively flatter terrain in
15 the east?

16 A. No, I would not say so. I find it hard
17 to think of anything flatter than the terrain in the
18 prairies.

19 Q. Oh yes, but then you have got some
20 humps in the mountains that would certainly, if you
21 averaged it out, give you not too flat a terrain if
22 you added in all of the mountains.

23 A. There are humps in eastern Canada
24 as well.

25 Q. You have a larger number of train miles
26 per mile of line in the east?

27 A. I would expect so, over all, but not on our
28 main line.

29 Q. You have an industrial economy in the
30 east as against an agricultural economy in the west?



1 A. Well, the west is industrializing very
2 rapidly. I would say, over-all, there is a greater
3 degree of industrialization in the east than the west.

4 Q. Oh yes, I would not expect you or anyone ---

5 A. But, the west is not bereft of industrial-
6 ization.

7 Q. There is a greater network of branch
8 line mileage in the west than in the east?

9 A. Canadian Pacific has a greater branch
10 line mileage in western Canada than in eastern Canada.

11 Q. And that, I put to you, would lead to
12 differences in cost variability between east and west?

13 A. No; we tested this. We computed our
14 regression equations on the basis of divisions across
15 Canada, and we compared the predicted with the actual
16 value in the east and in the west in an attempt to
17 discern any relationship by which the predicted and
18 the actual values differed as between the east and the
19 west.

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24 (Page 12114 follows)
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1
2 Q. Well, in any event, you choose to take
3 the position that the differences I have called to
4 your attention, some of which you have agreed with and
5 some of which you have not agreed with, you prefer
6 to take the position that those differences do not
7 lead to differences in cost availability between the
8 east and west?

9 A. That is what our test indicated,
10 Mr. Frawley.

11 Q. Now, are there any of the Canadian
12 Pacific Electric division costs charged to grain?

13 A. No, sir.

14 Q. They are not in, they have not been
15 charged?

16 A. No, I wrote you a letter on this subject
17 and there is nothing that I can add to what is in the
18 letter. Would you like me to read it?

19 Q. I do not mind you reading it. This is a
20 copy of the letter, our copy, which would be the orig-
21 inal, is not available to us at the moment.

22 A. "Canadian Pacific Electric lines have been
23 excluded from all regression analyses. Conse--
24 quently, all data appearing on statement 405 --
25 Stenason precis -- excludes C.P.E.L. C.P.E.L.
26 similarly has been excluded from all data appearing
27 on statement 406. Repairs to electric locomotives
28 are maintained separately in the records of the
29 company. The unit cost for freight car repairs
30 was based on total dollars in the account and car
miles on the system which includes car miles on



1 "C.P.E.L. and this reflects only in the unit cost
2 for car repairs. No element of expense appears in
3 statement 407 as associated with C.P.E.L.; this
4 applies to statements 408 and 409 as well.

5
6 You will appreciate that development of the
7 proportion for traffic and general expenses appearing
8 in statement 410 had, of necessity, to be based on
9 total operating expenses of the railway which include
10 C.P.E.L. However, since this proportion was
11 applied to the variable operating expenses in western
12 Canada, it may be said that a part of C.P.E.L. ex-
13 penses is reflected in statement 410.

14 Development of the constant expenses as set forth
15 in statements 411 and 412 required an adjustment to
16 the constant term in the regression equation which was
17 based on divisions excluding in all cases C.P.E.L.
18 which would reflect an estimate of total constant
19 costs of the Canadian Pacific system."

20 Now, this procedure was changed, as you know.

21 "Therefore, some portion of the expenses in statements
22 411 and 412 contains within it expenses incurred on
23 C.P.E.L. This was done so that the expense ratio
24 developed to reflect the proportion that grain
25 variable expense is to total freight variable expenses
26 would be based on system data. Any influence of
27 C.P.E.L. has been removed by the manner in which
28 this ratio was arrived at and applied."

29 Q. I am not quite certain of the words you
30 used, but I recall when I first asked you the question
and the question was, "Are any of the Canadian Pacific



1
2 Electric division costs charged to grain?" and you said,
3 "No". I said, "They are not in the grain cost study?"
4 and you said, "That is right." And now you are
5 proceeding to read me the letter which you said you wrote
6 to our consultants and I call your attention to a
7 sentence on page 3 which you have read into the record
8 which reads:

9 "Therefore, some portion of the expenses in state-
10 ments 411 and 412 contains within it expenses incurred
11 on C.P.E.L."

12 A. But go on and read the next sentence.

13 Q. "This was done so that the expense ratio
14 developed to reflect the proportion that grain
15 variable expense is to total freight variable ex-
16 penses would be based on system data. Any in-
17 fluence of C. P. E. L. has been removed by the
18 manner in which this ratio was arrived at and
19 applied."

20 A. Yes.

21 Q. All right, is it not true that the constant
22 costs in Exhibit 69 are derived by treating the regression
23 equations as if they applied to all 32 divisions, one
24 of which is the Electric division?

25 A. No, sir, that was the reason for the
26 revision.

27 Q. That was the reason for what?

28 A. The revision, the constant is not based
29 on that.

30 Q. The revision which is evidenced by
Exhibit 132?



1
2 A. Yes, Exhibit 68 revised -- no, pardon
3 me, Exhibit 69.

4 Q. And do I understand you to say that
5 before you had 32 divisions and now only 31, is that
6 the effect of what you are saying?

7 A. No, the Canadian Pacific has 32 divisions
8 and has had for the last two years, has and I hope will
9 continue to have -- no, at the present time, it does
10 not have, one division disappeared in the reorganization.

11 Q. I will ask you that question again,
12 Mr. Stenason: Is it not true that the constant costs
13 in Exhibit 69 are dervied by treating the regression
14 equations as if they applied to all 32 divisions, one
15 of which is the Electric division? You said "No",
16 but is that the way you did it before the revision?

17 A. Yes, that is correct, that is true to
18 some degree of Exhibit 69. The amount shown
19 total freight variable expense was applied to the total
20 system unit of output, that is the gross ton miles or
21 some other measure which is the system figure and
22 reflects all the work done in all of the divisions.

23 Q. And how about Exhibit 69 revised?

24 A. I was just describing Exhibit 69 revised.

25 Q. Well now, is what you have now done
26 the same as what you did before except that you have
27 applied it to 31 divisions instead of 32?

28 A. No, what I have done in the revision is
29 quite different from what was done before. What was
30 done before was to take directly the constant cost
regression equation which may have been based, let us



1
2 say, on 27 divisions in the case of station expenses and
3 to multiply that constant which was in terms of an
4 average cost per division by the 32 divisions of Canadian
5 Pacific as an estimate of the total constant cost in
6 the account.

7 Q. Mr. Stenason, yesterday you were dis-
8 cussing with Mr. Mauro an article in Railway Age and,
9 Mr. Chairman, I simply want now to extend that discussion
10 by offering as an exhibit the article in question. I
11 have not got the required number of copies which the
12 Commission needs, but they are being reproduced.

13 MR. SINCLAIR: Have you a copy with you?

14 THE WITNESS: I have a copy of the book in
15 my office.

16 MR. SINCLAIR: Who is going to prove the
17 exhibit?

18 MR. FRAWLEY: If my friend demands proof and
19 puts me to it strictly, I will bring the publisher here.

20 THE CHAIRMAN: Oh, I do not think that will
21 be necessary.

22 THE WITNESS: Mr. Wright is quite busy.

23 MR. FRAWLEY: I will bring the publisher,
24 that will prove it.

25 MR. SINCLAIR: That would not prove the
26 article.

27 MR. FRAWLEY: Well, I would try. We have
28 spent so much money on this now I guess my people in
29 Edmonton would authorize a few more thousand dollars.

30 Q. Mr. Stenason, I take it that you are
aware that you have allocated a share of the cost of



1
2 operating steam locomotives which will be eventually
3 retired?

4 A. Yes, Mr. Frawley. I would like to point
5 out that the only repairs to any degree which were
6 performed by Canadian Pacific on steam power in 1958
7 were running repairs and that the unit cost for steam
8 locomotives for repairs which is reflected in the study
9 is less than that for diesels and, again, the diesels
10 are based upon a very short average life and the long-
11 term diesel repair costs will be much heavier per unit
12 than are reflected in the study.

13 Q. So what you are saying is you are agree-
14 ing with me you have allocated a share of the cost of
15 operating steam locomotives which will eventually be
16 retired?

17 A. We have taken the unit cost, repair
18 cost for steam power and this applies to about 16
19 per cent of the locomotive miles in our grain study.
20 That was the number of miles run by steam power.

21 Q. Be it large or small, you have allocated
22 a share of the steam locomotives and these steam loco-
23 motives will eventually be retired.

24 A. So will the diesels, all locomotives
25 will some day be retired.

26 Q. And the result of that is you have a
27 mix of diesel and steam locomotives when you were alloc-
28 ating the costs?

29 A. Yes, we have a mix of steam and diesel
30 locomotives.

Q. Now, you wrote a letter to Mr. Banks on



1
2 the fifth of December, 1959.

3 A. Just a minute -- we have a file for
4 each month.

5 Q. I hope you will not have too large a
6 one for May and June, 1960.

7 MR. SINCLAIR: I am sure he won't.

8 MR. FRAWLEY: If you mean what I think you
9 mean you may be mistaken.

10 A. I have the letter before me. This was a
11 joint letter to Mr. Saunders and Mr. Banks.

12 Q. Yes, and the last paragraph I will read
13 not because I understand it but I will read it and
14 put to you what I am told it means. This is addressed
15 to Mr. Saunders in Washington and Mr. Banks in Washington:

16 "This is further to my letter of November 27, 1958,
17 providing answers to various requests made by
18 you. At that time, I advised you consideration
19 was still being given to the effect on the cost
20 study assuming full dieselization.

21 As mentioned at the meetings in Montreal on
22 November 21 and 22, the operations of Canadian
23 Pacific in western Canada were very largely
24 dieselized in 1958.

25 The significant effect of full dieselization
26 will be to increase locomotive maintenance costs
27 to take account of newly purchased diesel units
28 moving into maintenance cycles offsetting this at
29 1958 wage levels but not sufficient to offset at
30 levels pertaining thereafter, are transportation
savings.



"

Yours truly,

Director of Economic Research

Now, that means that you are looking to an increase in locomotive maintenance costs from diesels?

A. That is correct.

Q. That is what it says, at least.

A. Well, we are looking for an increase in diesel locomotive repair expenses over the level which pertained in 1958 because our units were relatively new in 1958. Now, a special study was performed by our mechanical department and I have beside me the man who is concerned with equipment maintenance on Canadian Pacific.

MR. SINCLAIR: Referring to Mr. Hayward whom we introduced a few days ago.

(Page 12124 follows)



1
2 THE WITNESS: This study indicated that
3 diesel locomotive repair expenses per unit of miles
4 would, over the long-term and reflecting a fuller
5 maintenance cycle on the diesels, be approximately
6 ten per cent higher than the level that prevailed
7 on average in 1958.

8 Q. So the result is if you had costed
9 it on a fully dieselized basis, the cost of grain
10 would have been higher?

11 A. There was a difference of about
12 \$6,000.00 or \$7,000.00, Mr. Frawley.

13 Q. Again, Mr. Stenason, you are very
14 careful to point out the small compass of these
15 things. But I put it to you that what you are saying
16 is that the net result would have been, if you had
17 costed it on a full dieselized basis, that the
18 cost of grain would have been higher?

19 A. Very slightly higher.

20 Q. I want to call your attention to
21 something Mr. Crump said, something Mr. Crump wrote
22 in a document called "Overseas Railways", which is
23 described as a railway gazette publication, and I
24 am told it is an annual, and it is the annual for
25 1960, and I am just going to read you a paragraph
26 of what Mr. Crump says:

27 "Diesel power is now performing over
28 90 per cent of Canadian Pacific Railways
29 services --"

30 A. What was the date of the article?

Q. I will have to tell you that this
is the 1960 annual, and it has been published now
for perhaps two months.



1
2 A. I see.

3 Q. "Diesel power is now performing over
4 90 per cent of Canadian Pacific Railway
5 services. Although the cost of dieselization
6 by the end of 1958 was nearly \$200 million,
7 it is estimated that yearly savings are
8 being made in excess of \$40 million, and
9 that there is a reduction of nearly \$9
million in current maintenance expenses=

10 A. Yes. Of course, that is based on
11 the total savings which have accrued as a result
12 of dieselization. Savings from dieselization depend
13 on the utilization of the power, and always in
14 the initial stages of your dieselization programme
15 you can get much greater use from the power because
16 you can take account of the fluctuations in traffic
17 and back-off steam power. Furthermore, the reduction
18 in maintenance expenses which is referred to in
19 that article would be the reduction in the maintenance
20 expenses of diesel locomotives. Even at their
21 full-term over the expenses of the old steam
22 power, which included the heavy back shop repairs
23 and running repairs in Canadian Pacific, they
24 passed very largely out of the field of the heavy
25 back shop repairs and steam power repairs in 1958.

26 Q. In the letter you wrote to Mr.
27 Banks you said if you costed it on a full dieselization
28 basis the cost of grain would be higher.

29 A. A. I would like to point out one more
30 thing. After 1958 the remainder of the dieselization
programme in the Prairie and Pacific Regions was
involved in essential branch or way train
operations. This was one of the large remaining



1
2 areas of steam power, and it is on these operations
3 that you get the lightest utilization of power, and
4 therefore the savings in the latter stage of the
5 programme are not nearly so pronounced as they are
6 in the early stages.

7 MR. SINCLAIR: Have you left that article?

8 MR. FRAWLEY: I have left the article.

9 MR. SINCLAIR: Are you going to file it?

10 MR. FRAWLEY: No.

11 MR. SINCLAIR: I didn't have a chance to
12 read it, but I notice it states:

13 "Onerous statutory rates on grain and
14 grain products continue to hamper profitable
15 operations".

16 MR. FRAWLEY: Now, apropos what you have
17 just said, Mr. Stenason, I am going to read you
18 something that was written to Mr. Banks, not by you
19 or Mr. Crump, by another gentleman, and this is what
20 the gentleman said:

21 "I do not feel that the cost of a traffic
22 movement, assuming some mix of power which
23 attends during a transformation stage of a
24 complete conversion to one type of power, would
25 be of informative or of reliable value".

26 What do you think of that?

27 A. I disagree with it.

28 MR. FRAWLEY: That was sent me by Mr.
29 Bandeen, Chief of Cost of the Canadian National
30 Railways.

THE CHAIRMAN: We will adjourn for five
minutes.

---Short recess.



1
2 THE CHAIRMAN: Order, please.

3 MR. FRAWLEY: Mr. Stenason, is it not
4 true that the capital invested in the solely related
5 branch lines has little alternative use other than
6 the salvage or relay value of the track?

7 A. No. The use of the investment in
8 the solely related branch lines is to move grain,
9 and that is a category of investment which we expect
10 will be largely perpetuated because of the necessity
11 of continually moving grain in the future.

12 Q. I am sure you heard what I said, but
13 in case it wasn't too clear, I will say it again.
14 It is not true that the capital invested in the
15 solely related branch lines has little alternative
16 use other than the salvage or relay value of the
17 track. Do you agree with that or not?

18 A. It is a rather -- I am not clear on
19 the term. What do you mean by "alternative use"?

20 Q. Can you use it for anything else
21 except for hauling grain?

22 A. No, sir.

23 Q. Have you given any consideration,
24 Mr. Stenason, to the possible invalidity of ascribing
25 any investment value to the grade, embankments,
26 the cuttings, the tunnels, the viaducts, the stations,
27 on what you have described as the solely related
28 lines?

29 A. Why, no. Those facilities are
30 required to move grain; they are required as part
of the trackage.

Q. Do you know A. M. Milne, who has
written "Economics of Inland Transport"?
Do you know his publication?



1
2 A. I believe he is dead now, Mr. Frawley.
3 When was the book published?

4 Q. I will accept that. I understand he
5 is dead.

6 A. When was it published?

7 Q. First in 1955 and revised and reprinted
8 in 1960?

9 A. Yes. No, I don't know him. I know
10 of him.

11 Q. Let me read to you what Mr. Milne
12 said on the subject:

13 "In considering the cost structures of
14 different forms of transport it is perhaps
15 necessary to make special mention of resources
16 which are so durable that they can be
17 regarded as everlasting. No replacement
18 cost being involved, the cost of using
19 these resources depends on the alternative
20 use to which they can be put. But, in the
21 sphere of transport, these resources are
22 usually so highly specialized that they
23 have virtually no alternative productive
24 potentiality. Many rail resources, as we
25 have noted, are of this kind. The use of
26 these resources -- apart from the maintenance
27 and upkeep -- is, therefore, costless in
28 the economic sense. These resources do
29 not figure in the assessment of fixed costs
30 (nor in the comparison of the cost structures
of different forms of transport)"

And then I must read you the footnote.
The footnote reads:

"The specificity of many railway resources



1
2 becomes apparent when a branch lines is
3 closed. What then are the alternative
4 uses to which the embankments, the cuttings,
5 the tunnels, the viaducts, the stations can
6 be put? Admittedly the rails and the
7 sleepers can be recovered and put to other
8 uses, but this cannot be done with
9 irremovable structures. If the structures
10 have no alternative uses, then their use for
11 rail transport purposes is costless and these
12 structures do not feature in the cal-
13 culations of the saving which will result
14 from the closing of the line".

15 A. That is critical, isn't it, Mr.
16 Frawley?

17 Q. "This saving, representing the
18 economic cost not incurred or, which is the same
19 thing, the value of the alternative goods and services
20 which can be reduced as a result of closing the line".

21 A. Yes. Mr. Milne is talking here about
22 the abandonment decision in which one is comparing
23 the economics and the expenses in an abandonment
24 decision, and I think it is not valid in an
25 abandonment decision to consider cost of money and
26 salvage value. I think it is equally invalid to
27 apply in cases where the investment must be perpetuated.
28 Insofar as branch lines are concerned, you mentioned
29 the road property and the grading. The Board of
30 Transport Commissioners prescribed depreciation
rates which are based on estimates of service lives,
categories of investment for branch lines. They are
a large number of years, but, nevertheless, implicit
in the taking of a rate based on 100 years, the



1
2 service life is based on the assumption that some
3 work must be done to reduce such facilities and the
4 basic work that is being done on the track.

5 Q. I put it to you that what Mr. Milne
6 is saying is that the investment is a sunk in-
7 vestment and therefore it could not be used?

8 A. No, that is not what he is saying.
9 Mr. Milne is saying, as I understand what you read
10 to me, that in considering an abandonment it would
11 be invalid to consider the investment; what one
12 should consider is the salvage value. That is not
13 a rate-making decision, it is an investment
14 decision, and there is quite a difference between
the two.

15 Q. I put it to you that he is not
16 talking exclusively of the abandonment of the line
17 but he is making the point that a great deal of
18 the investment other than the salvage value of the
19 rail or the relay value of the rail is sunk because
there is no alternative use.

20 A. Again in an abandonment decision, that
21 is correct, Mr. Frawley. In a rate-making decision
22 we have the problem of perpetuating this investment.

23 Q. You have said that the solely related
24 lines are there because they are cheaply designed,
certainly maintained to move grain?

25 A. To develop Western Canada and the
26 Prairies, and the principle development in the
27 Prairies has been grain.

28 Q. And they would not have been built
29 except for grain?

30 A. Except for the opening of the West



1
2 which has been connected with grain.

3 Q. I understand you said that they are
4 basic to the plant, that these lines in Western
5 Canada are basic to the plant. What is the
6 difference between the expression "basic to the
7 plant" and "solely related lines"?

8 A. I think I explained that to Mr.
9 Mauro yesterday. A solely related facility is a
10 facility which would not be required if the traffic
11 was not handled. Something which is basic to the
12 plant is the traffic which constitutes a large
13 proportion of the total freight traffic using the
14 facilities, facilities in common with the grain
15 and other types of traffic.

16 Q. In any event, you have not given
17 any consideration to the proposition that your
18 investment in your solely related branch lines is
19 a sunk investment?

20 A. It would not be valid to do so,
21 Mr. Frawley.

22 Q. Would you not call it a sunk cost,
23 the cost that had been invested in the solely related
24 branch lines?

25 A. Well, I think there may be some
26 confusion in the words "sunk cost". Sunk cost
27 turns around a particular decision. If we are
28 considering an investment decision, then we could
29 consider investments made in branch lines to be
30 sunk. If we have a rate-making decision, then
there is the possibility, and, indeed, in most
cases the necessity, of perpetuating the investment
over the long-term, and therefore cannot be con-
sidered a sunk investment for rate-making.



1
2 Q. What is the distinction, having
3 regard to the fact that investments in the solely
4 related lines is a sunk investment, when you say
5 under certain circumstances you would take it into
6 account and in other circumstances you would not
7 take it into account?

8 A. If we had an abandonment decision
9 to make, then I think it would be appropriate to
10 consider the salvage value.

11 Q. That may be obvious, if you are
12 abandoning it. I am putting it to you: What
13 right have you got to seek a rate of return on
14 a sunk investment, on a costless investment?

15 A. It is not costless, Mr. Frawley;
16 it is an investment that has to be perpetuated over
17 the long-term, and this varies with the traffic
18 volume.

19 Q. Would you say that a sunk cost concept
20 is never appropriate to a pricing policy?

21 A. I would say that it is not appropriate
22 to rate-making policies in the railway industry
23 because of the nature of traffic volume and the
24 regulatory matters which have surrounded the making
25 of railway rates. As a result of a number of cases
26 in the United States and Supreme Court Judgments,
27 rates which do not cover an estimate as to the
28 long-term cost associated with the traffic
29 involved are held to be non-compensatory. Involved
30 in that assumption is the perpetuation of investment
as required since it is assumed that traffic volume
is perpetuated.

Q. Take any one of your solely related
lines in Western Canada. Take any line that runs



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Stenason Cr-ex
(Frawley)

12133

1
2 in Alberta from Cremona to the main line at
3 Calgary and Edmonton, or what you call your Calgary-
4 Edmonton branch. I put it to you that there is no
5 alternative value, except salvage and relay value, for
6 the grade, the cuttings, the tunnels, the bridges,
7 whatever they are, and that piece of railway which
8 is a solely related line in Alberta.
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1 A. Well, let us take a tunnel on this line.

2 I don't know whether there is one. I don't believe we
3 have any tunnels on our solely related lines.

4 Q. I had to take the tunnels because Mr.
5 Milne had tunnels?

6 A. We don't have any on our solely related
7 lines. But, let us take a bridge: the grain will con-
8 tinue to move on this line. There is probably a wooden
9 trestle on the line. The wooden trestle would have
10 to be replaced. As I said, the Board of Transport
11 Commissioners ---

12 Q. If I may say so, I don't think you are
13 being responsive to my question -- certainly not deliber-
14 ately, of course -- but I suggest to you what you are
15 talking about is maintenance. My friend Mr. Sinclair
16 is on his feet: there must be something wrong with
17 the question.

18 MR. SINCLAIR: Obviously, Mr. Chairman, I
19 can say this to you, one who is an expert on railway
20 maintenance, that there is a difference between the proced-
21 ure here and in the United States for treating certain
22 assets of the railway, and what may be maintenance in
23 the United States is a capital charge and therefore in
24 a different situation in Canada.

25 MR. FRAWLEY: I think the answer to that is
26 to look on the cover of the book, because Mr. Milne
27 was an Englishman.

28 MR. SINCLAIR: And there is a very different
29 method over there, because they don't even follow the
30 depreciation accounting for track in England.



1 THE CHAIRMAN: What is your question, Mr.

2 Frawley?

3 MR. FRAWLEY: Q. I interrupted you, Mr.

4 Stenason: would you pick it up from what you were saying
5 about that line from Cremona into the Calgary and
6 Edmonton railway?

7 A. We were discussing the hypothetical bridge
8 which may be on the line, and I suggested to you that if
9 the grain continues to move over this line, then at some
10 stage, perhaps next year or 20 years from now -- I don't
11 know what the service life of a wooden trestle is --
12 I am informed there is a bridge on the line.

13 Q. I'll bet there would not be more than
14 one bridge?

15 A. It is a wooden bridge.

16 Q. I wonder what the value of that bridge is.
17 Well, all right.

18 A. But at some stage this bridge will have
19 to be replaced because of the traffic volume moving
20 over the line, and that is an investment which must
21 be recovered, the cost of which must be covered by the
22 traffic volume using the line.

23 Q. I don't know how long that line out there
24 from Cremona in or from the C. and E. out has been there,
25 but it was there for many long years without you having
26 to touch the bridge. I put it to you that my proposition
27 that you should not endeavour to burden users with the
28 costs by seeking a rate of return on costs which are
29 truly sunk: my proposition has nothing to do with
30 maintenance; all it has to do with is the question of



1 validity in line with what Mr. Milne says of seeking a
2 return on the investment - the sunk investment that you
3 have made in the line?

4 A. How would you suggest the cost be covered
5 if it is not covered by the users?

6 Q. If it is not covered by what?

7 A. If the cost of the investment which is
8 used in order to handle the traffic is not paid for by
9 the traffic moving over it, how would you suggest it
10 be covered? It is a real cost. It turns up in the
11 books.

12 Q. I am challenging the validity of the
13 cost. I put it to you -- and Mr. Milne says, if you
14 will look further into his book, that it is a hypothetical
15 cost, not a true cost -- and all I am endeavouring to
16 do is to keep the people who have to pay -- not have
17 to pay because it is a condition of your scheme that
18 we haven't got to pay anymore -- perhaps I can be said
19 to be endeavouring to save the national treasury from
20 having to pay an amount equal to what you are now getting.
21 I am concerned with having the Commission explore the
22 validity of seeking a return on the costs which you have
23 put into the solely related branch lines, which solely
24 related branch lines have no value except the salvage
25 value and the relay value of the rail?

26 A. But you said it was not a real cost, and
27 it is a real cost. Interest has to be paid every year.
28 The cost of money is similar to the cost of wages.

29 Q. Mr. Milne said it was not a real cost,
30 not I.



1 COMMISSIONER ANSCOMB: Mr. Frawley, could I
2 ask you a question: if the money has to be provided,
3 what you call "sunk", where are you going to get that
4 return from if you don't get it from the traffic going
5 over the road?

6 MR. FRAWLEY: You get the return from the
7 traffic going over the road. It is the component parts
8 in what you should get a return on, Mr. Commissioner.

9 COMMISSIONER ANSCOMB: It is part of it.

10 MR. FRAWLEY: Yes, in Mr. Stenason's scheme.

11 COMMISSIONER ANSCOMB: In any business man's
12 scheme, and so it is from the public viewpoint. If you
13 build a highway and issue bonds to pay for it,
14 a very large proportion of that is in drainage and right-
15 of-way and everything else that may be quite worthless
16 if you change the route of the road, but you have still
17 got to pay the interest on your bonds.

18 MR. FRAWLEY: This raises the question of
19 what is the proper value of the costs sunk in the
20 solely related branch lines, and my respectful submission
21 is that the observations of Mr. Milne are worthy of
22 consideration by the commission, and it becomes a
23 question of validity, whether or not in seeking a rate
24 of return on this kind of property that it is fair to
25 include in the cost to be borne by the shipper of export
26 grain the cost which Mr. Milne says is a sunk cost and
27 has no alternative value except the value of the salvage
28 and the value of the rail.

29 THE CHAIRMAN: Mr. Frawley, Mr. Stenason has
30 a meeting to attend, and the witness might stand down.

1 Before we adjourn, the question of our adjourn-
2 ment must come up. We have not given a date of adjourn-
3 ment for the reason that we did not know, nor could we
4 tell, how fast and how far we could get with the witnesses.
5 I think it is important to recognize with the key wit-
6 nesses, like Mr. Stenason, Mr. Bandeen and Mr. Edwards,
7 that there should be no limitation on the cross-examination.
8 Likewise when Mr. Banks gets into the box and Mr. Saunders,
9 there should be no limitation.

10 MR. SINCLAIR: Or on the time for preparation,
11 I take it, either?

12 THE CHAIRMAN: Well now, Mr. Sinclair, when
13 I finish we will hear your observations.

14 One of the very difficult things that we
15 have had to deal with as a commission is the matter of
16 dates and the matter of witnesses. We have been sitting
17 for three weeks, and some of my colleagues are most
18 concerned with paying some attention to their own
19 businesses and their own work, and we have to adjourn
20 tomorrow night.

21 Now, I thought I told my friend Mr. Sinclair
22 that we could sit on Saturday, but he did not want to
23 sit on Saturday. So, tomorrow, when we adjourn, we
24 will adjourn to Fort William on the 28th of May. We will
25 be there one day and come back here on Monday the 30th
26 of May. We will be in session until June 17th here. We
27 will adjourn until the 4th of July and be back here on
28 that date and sit until the 15th of July, and then we
29 will adjourn until the 12th of September, and be back
30 here for hearings from then on.



1 The court house in Port Arthur is the place
2 of the meeting on the 28th of May.

3 MR.SINCLAIR: Mr. Chairman, in view of the
4 fact it was my witness that I introduced to the box
5 on behalf of the railways, and also to follow him, in
6 accordance with the suggestions of everyone that I
7 disclose these witnesses some time ago, in the order
8 of Dr. Edwards followed by Mr. Bandeen, who was intro-
9 duced to this Commission by my confrere, I think it
10 is necessary for me to say that while we recognize
11 very much that the members of this Commission are
12 sacrificing much in giving their time to this inquiry,
13 this inquiry was not sought by these witnesses here, who
14 have also sacrificed much to come forward with their
15 data and to spend many nights getting ready for the
16 cross-examination by a battery of Canada's most distinguish-
17 ed cross-examiners, some of whom have appeared here
18 and some who are still to be heard from. This is a
19 great burden on witnesses, as you, sir, know all too
20 well, and these people got ready and came here many
21 months after they had presented their evidence in chief.
22 This long adjournment was to afford full time to counsel
23 and their consultants to inquire into the cost study
24 and, notwithstanding the fact that I, on behalf of the
25 railways, did suggest that the long adjournment was not
26 necessary and didn't place undue burdens on them, the
27 ruling was made and, of course, I bowed to it, and I
28 am only saying this: I have no right other than to
29 bow to your ruling, as today, but I do point out it
30 has put a further very substantial burden on men who have



1 had a very great burden in connection with this cost
2 study. I am sure it was not done lightly by you, but
3 it does seem to me unfortunate, sir, that the restricted
4 hours that we have been sitting, restricted only in
5 comparison to some hours we spent at other places such
6 as Winnipeg, Regina and elsewhere, had to come up when
7 we have available for the assistance of the Commission
8 and my friends many men -- and you can see them in the
9 court room here today; there is a great number of them
10 here, and if they hadn't been here we would have not
11 to extend the times of hearings very substantially.
12 We were told to come here, and this was for the cross-
13 examination of these witnesses. I can well understand
14 the desire of the Commission to give my friends full
15 opportunity to explore this matter, and this is the
16 reason, I take it, that you say you have not restricted
17 cross-examination in any particular.

18 Now, I am disappointed, sir, to find that this
19 is being adjourned not for a few days, not for a week,
20 but for two weeks, and then a further adjournment coming
21 up in June and then sitting two weeks in July. We
22 know this city rather well, and this room rather well --
23 and that includes all of us because we have been here
24 many times -- know that this room and this city in the
25 month of July is pretty near impossible.

26 THE CHAIRMAN: I agree with you.

27 MR. SINCLAIR: And I am very, very sorry, sir,
28 that it has been found necessary to put aside May in
29 favour in July in this place. I do understand that
30 the Commission has made its decision and we, of course,



1 notwithstanding the additional burdens that are imposed
2 upon us both financially and also on the health and
3 well-being of these people who are here -- we will accept
4 that, of course, and we will do our best to try to meet
5 it, but I do feel that it is a most unfortunate turn
6 of events in respect of this matter.

7 THE CHAIRMAN: Mr. Sinclair, you have said
8 that it was unfortunate. We realize that, and so far
9 as the Commissions are concerned, my colleagues and myself,
10 the most unfortunate thing is that we accepted an invita-
11 tion to serve on the Commission, perhaps.

12 MR. SINCLAIR: That is so, maybe, sir.

13 THE CHAIRMAN: And when we sit for three
14 weeks at a time it is pretty near long enough.

15 MR. SINCLAIR: I recognize that, and I did
16 indicate that in my remarks that I recognized the sacri-
17 fice that was being made, but, notwithstanding that,
18 a job was to be done and it does seem to me, again I
19 say, unfortunate that there is a disability and an
20 additional burden on a number of aspects put upon us.
21 I thought it was for that reason ---

22 THE CHAIRMAN: Well, you have registered it.

23 MR. FRAWLEY: Mr. Chairman, I will only add
24 a very short word, but I must call attention to the simple
25 fact that while the Commission set out by prescribing
26 these hours as 10 to 12 and 2 to 4, nevertheless the
27 Commission felt bound, against my protest, that this
28 week the hours would be extended half an hour in the
29 morning and half an hour in the afternoon adding one full
30 hour to the hours prescribed at the beginning, and in my



1 respectful submission this was the worst time and
2 most inappropriate time. Again, the ruling was made,
3 and I had to conform to it, and I personally had to
4 conform to it, and I want to set that down in the context
5 where Mr. Sinclair says that May has been given up for
6 July.

7 MR. SINCLAIR: Mr. Chairman, you made some
8 remark that I didn't want to sit on Saturday. That
9 was on the basis that I had made two alternative sugges-
10 tions about night sittings this week or next week. Is
11 it your suggestion now, sir, that you are asking me
12 whether we will be available on Saturday? Because the
13 position I did adopt was that Saturday -- I was asking
14 for the alternative of night sittings.

15 THE CHAIRMAN: Well, I would have to consult
16 my colleagues in that connection, because having come
17 to a decision as to dates and told them Saturday was
18 not desired, some of them have made arrangements to
19 leave tomorrow.

20 MR. FRAWLEY: Well, I will be in Toronto on
21 Saturday, and that is a definite commitment, sir.

22 MR. SINCLAIR: Well, there is a personal
23 reason for Mr. Frawley, and he is the one examining,
24 I take it? I take it what you are saying is that Mr.
25 Stenason, at least, will be finished?

26 THE CHAIRMAN: We hope so, yes.

27 MR. SINCLAIR: Well, I would hope it could
28 be so arranged that we could sit until such time as we
29 at least complete Mr. Stenason, and have one man finished.

30 MR. FRAWLEY: I am not the last cross-examiner



1 of Mr. Stenason, but, speaking for myself, I have quite
2 a few notes left, but I will certainly not keep Mr.
3 Stenason too long; if I keep him all morning, that would
4 be the most.

5 THE CHAIRMAN: We certainly will finish
6 Mr. Stenason.

7
8 ---Adjournment.
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For the Commission

ROYAL COMMISSION

ON

TRANSPORTATION

HEARINGS

HELD AT

OTTAWA

VOLUME No.:

DATE:

13 MAY 1960

OFFICIAL REPORTERS

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I N D E X

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STENASON, Walter John

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| <u>EXHIBIT NO.</u> | <u>DESCRIPTION.</u> | |
|--------------------|---|-------|
| 134 | Exhibit 40 in Mountain Differential Case | 12191 |
| 135 | Exhibit 98 in Mountain Differential Case | 12191 |
| 136 | Exhibit 100 in Mountain Differential Case | 12191 |
| 137 | Document: Account No. 402 Train Other Expenses | 12254 |
| 138 | Document: Canadian Pacific Railway - Grain Door Expenses | 12255 |



ROYAL COMMISSION ON TRANSPORTATION

Proceedings of hearings held
in the Court Room, Board of
Transport Commissioners Offices,
Ottawa, Ontario, on the 13th
Day of May, 1960.

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E R R A T A

VOLUME 66

| <u>Page</u> | <u>Line</u> | <u>Reads</u> | <u>Should read</u> |
|-------------|-------------|--------------|--------------------|
| 11810 | 9 | 35 tons | 55 tons |

VOLUME 69

| | | | |
|-------|----|-----------------|--|
| 12155 | 23 | applied. I am | applied. Mr. Frawley: I am |
| 12170 | 8 | Amerston | Emerson |
| 12182 | 6 | Murillo | Midale |
| 12182 | 8 | to some figures | to be some figures |
| 12200 | 25 | Traffic | Track |
| 12213 | 23 | relatedness | solely relatedness |
| 12224 | 17 | explain | explained |
| 12224 | 18 | your | our |
| 12226 | 17 | full | total |
| 12291 | 20 | sample | sampled |
| 12323 | 27 | are at all | are all |
| 12324 | 4 | move | more |
| 12324 | 7 | freight | freights |
| 12325 | 12 | car per cut | cars per cut |
| 12328 | 18 | systematic | system |
| 12346 | 15 | | Add "but" between "all" and "three" |
| 12357 | 14 | \$1,357,205,00 | \$1,357,205.00 |
| 12358 | 22 | they | there |
| 12371 | 25 | universal | universe |



Ottawa, Ontario,
Friday,
May 13, 1960.

---On commencing at 9.30 a.m.

THE CHAIRMAN: Order, please.

CROSS-EXAMINATION BY MR. FRAWLEY (cont'd):

Q. Mr. Stenason, would you please look at Exhibit 65, revised, line 19. If you look at line 19 you will find that your new figure -- that is a changed figure, incidentally -- until Exhibit 132 was filed that was 6,359,088, but now, in any event, it is 6,378,621, and am I right in saying that is a composite of crew wages and fuel?

A. Yes, and this change which was covered in my explanation on Exhibit 132 resulted from having the fuel and crew wage expense separated and applying the vacation adjustment separately to the crew wages of the study traffic. Previously we had applied a ratio reflecting crew wages to the total of fuel and crew wages of the system freight traffic as a whole. The labour intensity of train operations in respect of the study traffic is somewhat greater than that of the system freight. This results largely from the branch line operations.

Q. I wasn't really concerned with your explanation of the change, but that is all right to put it on the record. Will you please give me the breakdown of that figure, 6,378,621, between crew wages and fuel?

A. The crew wage expense is 3,978,702, and



1
2 fuel is 2,399,919.

3 Q. How long has that figure been available,
4 or, if not that one, the earlier one of 6,359,088?

5 A. Well, the earlier figure which was in the
6 precis has been available since September when we completed
7 this portion of the study.

8 Q. The 6,359,088 has been in your precis
9 since September. How long has the breakdown of
10 6,359,088 -- I assume you had a similar breakdown for the
11 6,359,088 as you have given me for the 6,378,621?

12 A. No, we didn't. I explained yesterday
13 that as a result of questions which had been directed to
14 us we split out the fuel and crew wages separately.
15 There were a number of work paper stages involved, and
16 the fuel and crew wages initially had been combined,
17 and the later work done on them. As a result of questions,
18 we went back to the first or second stage of the work
19 paper and split the fuel and crew wages separately.

20 Q. Well, I am sure you won't mind if I put
21 on the record one sentence from the letter you wrote
22 to Mr. Banks on the nineteenth of February. You stated
23 Mr. Banks' question, and your answer followed the question.
24 I am reading from page two of your letter to Mr. Banks
25 of the nineteenth of February:

26 "4. Your WP-14 shows ratio of crew wages
27 to total fuel and crew wages for
28 C.P.R. system. What is similar
29 ratio for grain study traffic?

30 A. This is not available."



1
2 A. That was quite correct; it was not avail-
3 able. As a result of the question we reworked it and
4 when Mr. Banks was in Montreal in connection with cal-
5 culations of fuel and crew wages he worked with the
6 split data.

7 Q. Now, Mr. Stenason, I want to discuss
8 the matter of taxes with you. I first want to call your
9 attention to your figure of \$875,250.

10 THE CHAIRMAN: Where is that?

11 MR. FRAWLEY: Let me just find out where
12 that is, sir.

13 Q. If you look at Exhibit 68 -- and you
14 will have to look at your original 68.

15 A. Yes.

16 Q. There is a figure there for rents and
17 taxes of \$925,804?

18 A. Yes.

19 Q. And I am told when you break out the
20 rent you come up with a figure of \$875,250: Can you
21 confirm that?

22 A. \$875,228.

23 Q. \$875,228 is the right figure?

24 A. Yes.

25 Q. Now, I am going to ask you would you
26 mind referring to the Canadian National submission,
27 Mr. Bandeen's, the statement N. R. 3 - 9 revised.

28 A. Yes.

29 Q. I find Mr. Bandeen has a figure for
30 property tax of \$262,883.

A. What page are you on?



1
2 Q. Well, it is sheet 5 of 6 sheets, N. R.

3 3-9?

4 A. Yes.

5 Q. I think the text will give it to us:

6 Page 35 of Mr. Bandeen's statement. At the bottom of the
7 page you will see that Mr. Bandeen says, under the side
8 heading of "Taxes on Solely Related Plant" municipal and
9 other taxes which are paid on the solely related plant
10 were obtained from company records and included as a
11 cost variable of the study traffic. From that I take it
12 that all that grain is being asked to bear is \$262,883
13 in so far as the Canadian National is concerned. First
14 of all, would you confirm that? Is that what you under-
15 stand?

16 A. That is my understanding.

17 Q. In the case of the Canadian Pacific Rail-
18 way you have made an apportionment, as I understand it?

19 A. Yes.

20 Q. I am just wondering if this is not what
21 you did: Your study assumed that all taxes, other than
22 income taxes, of course, are 100 per cent variable with
23 the traffic?

24 A. No, sir.

25 Q. No? To what extent is that not correct?

26 A. This ratio was applied to the constant
27 and to the variable expense. Therefore, the presumption
28 is that the Traffic and General Expenses have the same
29 degree of variability as operating expenses as a whole.
30



1 Q.. I am instructed that is the same as saying
2 they are 100 per cent variable with traffic?

3 A. No sir, that is not.

4 Q. Would you state it again, please?

5 A. Yes, they are variable as operating
6 expenses as a whole. Now, operating expenses as a whole
7 in our study are approximately 77 per cent variable.
8 You see, this ratio goes on to the constant expenses
9 as well as to the variable expenses.

10 Q. All right, we will accept that. Now,
11 that means in that percentage that you have indicated
12 that as the traffic increases then the assessment
13 and, therefore, the taxes, always speaking of taxes
14 other than income taxes, that the assessment and, there-
15 fore, the taxes increase.

16 MR. SINCLAIR: Pardon?

17 THE WITNESS: Over the long term there is a
18 relationship between the property taxes and the value
19 of investment and the value of investment is based on
20 traffic volume.

21 Q. Always having in mind that you are now
22 saying it is 77 per cent and not 100 per cent, you are
23 saying that within those limits there is a variability
24 and that as the traffic increases the assessment, and
25 therefore the tax increases.

26 A. Yes.

27 Q. And contrariwise, when the traffic decreases
28 the assessment of the taxes decreases accordingly?

29 A. No, a very long time till you adjust the
30 plant investment to the level of output.



1 Q. Now then, I am not concerned with any
2 other problems than my own and I would like to call your
3 attention to two statutes. The first statute is the
4 Railways Assessment Act which is 278 of the Revised
5 Statutes of Alberta, 1955 and to the Assessment Act
6 which is chapter 17 of the Revised Statutes of Alberta
7 1955 which must be read to get the complete procedure.
8 Now, are you familiar, first, with the amount of assess-
9 ment and taxes which you pay in Alberta, always excluding
10 income tax, because indeed you pay no income tax to
11 Alberta.

12 A. Are you referring to the various tax
13 exemptions in various parts of the land?

14 Q. Now, I should correct that - not yet. I
15 am at the moment - are you aware of the kind of taxes
16 that you pay in the province of Alberta?

17 A. I am not fully aware of all the statutes
18 governing taxation of property across Canada.

19 Q. Well, without that awareness your cost
20 on the study is based on your application of taxes to
21 this study, the traffic is, put on the proposition you
22 have put to us, that within the limits of 70 degrees
23 the taxes are variable on traffic?

24 A. Yes, as part of the over all ratio.

25 Q. I will put on the record section 5 of
26 chapter 278 of the Railways Assessment Act in Alberta
27 and it says:

28 "The roadways and superstructure of the roadway
29 shall not be assessed at a greater value than one
30 thousand dollars per mile."



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I put it to you that what is put there as a maximum has been used in the Province of Alberta for many, many, many years, \$1,000.00 per mile -- you are certainly not in the position to challenge that?

A. I am not an expert on the legislation in Alberta.

Q. No, I would not expect you would be an expert in the legislation of Alberta but I put to you first that your study which you did here went on the assumption of your taxes other than income tax were variable on traffic and I would point out to you that in the Province of Alberta - I think it originated in 1897 and that is a fateful year - since 1897 you have been paying on your superstructure and roadway \$1,000.00 per mile under that statute. I put it to you that that is not 100 per cent variable with traffic.

A. Is that a maximum of \$1,000.00?

Q. Yes, a maximum of \$1,000.00 per mile.

My friend Mr. Sinclair is aware of it because all during his very laborious work with the Province of Saskatchewan this came up but you do not know about that at all?

A. Does every line pay \$1,000.00 per mile?

Q. If you're asking me then I answer you with the statutes and the answer is yes. Now, I am going to read you another, this is the Railways Assessment Act, 278. You also pay tax under another statute and this is subject to a query, the query being this, you have one of the statutes related to Mr. Fleming and I am sure the vice-president of the Canadian Pacific would



1 know but the only other tax which you pay in Alberta other
2 than income tax is paid under the provisions of what is
3 called the Railway Taxation Act. You will recall the one
4 I called your attention to a moment ago was the Assess-
5 ment Act. Incidentally, I should say, Mr. Stenason, that
6 this is an assessment by the municipalities through which
7 your line runs, always excepting the main line and I will
8 discuss that with you in a moment. The other tax is one
9 you pay to the Province of Alberta, this is the Railway
10 Taxation Act under that statute I will read you section 6:

11 "Until the actual value of a railway or parts
12 thereof has been determined by the Lieutenant Gover-
13 nor in Council, the actual value of the railway for
14 the purposes of this Act shall be taken to be twenty
15 thousand dollars for each mile of the railway exclusive
16 of switches and turnouts."

17 I put it to you that as far as I recall the
18 Lieutenant Governor in Council in Alberta has not set up
19 a body by way of fixing the actual value so section 6
20 is a comparable statement and you pay on the basis of
21 twenty thousand dollars for each mile of the railway inclu-
22 ding the switches and turnouts. Assuming I am right about
23 that and the Lieutenant Governor has not fixed any other
24 value I put it to you again that that tax is not 100 per
25 cent variable with traffic, but, quite the contrary, is
26 completely constant in every respect.

27 MR. SINCLAIR: Mr. Nepveu could answer this,
28 he is the assistant comptroller of the company.

29 THE CHAIRMAN: Very well, if he would, please.

30 MR. SINCLAIR: He was introduced earlier and



1 I understand this is basically the work of Mr. Nepveu.

2 MR. FRAWLEY: Mr. Nepveu is the one who
3 supplied this information to Mr. Stenason?

4 THE CHAIRMAN: He has heard the questions and
5 he can answer them.

6 MR. FRAWLEY: Mr. Nepveu, have you any different
7 answer to make?

8 MR. NEPVEU: I think there is a distinction
9 to be made, first, included in this is an amount for
10 unemployment insurance which varies with the figure
11 involved in moving traffic.

12 MR. FRAWLEY: You say there is an allowance
13 for ---

14 MR. NEPVEU: For unemployment insurance.

15 MR. FRAWLEY: That has nothing to do with the
16 Province of Alberta.

17 MR. NEPVEU: You were talking about taxes.

18 MR. FRAWLEY: I am talking about this tax
19 under the provisions of the two Alberta statutes.

20 I am directing my mind to that at the moment.

21 MR. SINCLAIR: I think what the witness has
22 said that in the amount of taxes to which counsel have
23 selected, the point he made was that in the classification
24 tax there is included unemployment insurance.

25 THE CHAIRMAN: I think the question is "what
26 is tax?"

27 MR. SINCLAIR: No, it is under the classification,
28 unemployment insurance, and the first point ---

29 MR. FRAWLEY: What is the number of the account?

30 MR. NEPVEU: 468.



1 MR. SINCLAIR: The point was when he made
2 reference to the Canadian ^National, the Canadian National
3 showed them separately and the Canadian Pacific was
4 showing them together.

5 MR. FRAWLEY: Let us just get a little order.
6 Mr. Nepveu, you first raised the question that included
7 in this item of \$875,228.00 there is some unemployment
8 insurance?

9 MR. NEPVEU: Yes, sir.

10 MR. FRAWLEY: And can you tell me how much?

11 MR. NEPVEU: No, I do not have a separate
12 figure, it may be available to you but I do not have
13 that figure now.

14 MR. FRAWLEY: Well, Mr. Nepveu, from your
15 recollection of working on these figures, is it large
16 or is it not large?

17 MR. NEPVEU: It may account for 20 per cent
18 or 25 per cent of the taxes exclusive of income taxes.

19 MR. FRAWLEY: It may account for 25 per cent
20 of the \$875,000.00?

21 MR. NEPVEU: Of the total taxes of the company,
22 I do not know what the amount is included in the
23 \$875,000.00.

24 MR. FRAWLEY: I think we had better have a
25 breakdown of this \$875,228.00 because now you say this
26 is 25 per cent of that for unemployment insurance.

27 MR. NEPVEU: I said 25 per cent of the total
28 taxes of the company are unemployment insurance.

29 MR. FRAWLEY: Well, this is a prorated
30 apportionment of the total tax?



1 MR. NEPVEU: All on the same basis, unemploy-
2 ment insurance is prorated on the basis of labour.

3 MR. FRAWLEY: Of revenue?

4 MR. NEPVEU: Of labour and the other taxes
5 are prorated on the basis of all other expenses.

6 MR. FRAWLEY: I think perhaps we had better
7 have a breakdown in which you indicate the amount. I am
8 concerned with the taxes and the account I am discussing,
9 property taxes assessed by municipalities on
10 the line of the railway as they run through the various
11 municipalities, main line and branch lines, that is the
12 tax I am talking about and I am not going to venture into
13 other statutes but I will put it to the witness, perhaps
14 Mr. Nepeu can answer but I will put it to the witness
15 that the tax I have been talking about, the tax which
16 is fixed and has been fixed for many years, an arbitrary
17 amount fixed as the total value of the roadway and
18 the superstructure, it is not a tax which is 100 per
19 cent or 70 per cent or 50 per cent or 10 per cent
20 variable on traffic. Can you challenge that statement?

21 A. It depends upon the extent to which the
22 maximum taxes apply in every case and I do not know the
23 extent to which that is applied. I am putting it to you
24 and my friend Mr. Sinclair is there who has lived with
25 these taxes for many years in the Province of Alberta
26 that all you pay in the Province of Alberta is the sum
27 of \$1,000.00 per mile, that is municipally, branch line
28 and main line, except on the main line you do not pay
29 one red farthing. Other than that you pay taxes on
30 an arbitrary amount fixed on the superstructure of the



1 roadway. If necessary we will bring witnesses from
2 Edmonton to establish that but that is the fact and I say
3 your conclusion at 70 per cent or any per cent is
4 variable with traffic is just unsound.

5 A. I would want to look at the ---

6 Q. Mr. Stenason, I dislike putting this to
7 you but are you so concerned with the soundness of what
8 you are saying that you will not admit that if my
9 assessment is right that you are paying as a maximum
10 \$1,000.00 per mile under the municipal tax set up and
11 \$20,000.00 per mile on the provincial set up that that
12 is something that you would have to look at before you
13 would agree with me that that is not variable with
14 traffic? I wish my friend would let the witness answer
15 but I guess it is too difficult ---

16 MR. SINCLAIR: Well, Mr. Chairman, I think it
17 is quite obvious that the witness has said he does not
18 understand about these taxes and notwithstanding the
19 fact that I have struggled with them, as my friend has
20 said, for a good many years, I do not understand about
21 them either. I do think that on the assumption it is
22 just the same as saying black is black, if you accept
23 the assumption then the answer is set up and based on
24 an assumption.

25 MR. FRAWLEY: I do not want to get into any
26 byplay with my friend but my friend is surely not saying
27 he does not understand the taxation system in Alberta
28 of the Canadian Pacific Railway.

29 MR. SINCLAIR: I do not understand the taxes
30 is what I said.



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Stenason, cr-ex.
(Frawley)

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1 MR. FRAWLEY: With the greatest of respect

2 Mr. Chairman, he is just retreating from the battle.

3 THE CHAIRMAN: Would you put the question

4 again?

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13 (Page 12159 follows)



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2 Q. Mr. Stenason, do you really want to put
3 it to me that until you can check these statutes, these
4 municipal records, you will not admit to me that if my
5 assumption is correct and that under The Railways Assess-
6 ment Act you are paying municipalities in Alberta, on
7 the basis, on the maximum basis of \$1,000 per mile and
8 you are paying the province of Alberta under The Railways
9 Taxation Act on the basis of an arbitrary value of
10 \$20,000 per mile -- you are not prepared to admit, if
11 my assumptions are correct, that your conclusion that
12 taxes are payable with traffic is not a sound conclusion?

13 A. Well, the basis which I want to examine
14 is whether the maximum as set forth under the statute is
15 the amount which is paid on every line.

16 Q. I certainly don't want to join in any
17 uncomplimentary references to you, and I don't like to
18 use the word "obtuse", but if you look at the Railways
19 Assessment Act you will find there it is the maximum and
20 nothing more that can be charged?

21 A. But the point is, is less than that
22 charged on certain lines?

23 Q. Some municipalities may be generous
24 enough to charge half.

25 MR. SINCLAIR: That happens in places, you
26 know. I don't know if it happens in Alberta.

27 MR. FRAWLEY: Q. Would that be a variation
28 in traffic?

29 A. Yes, it could be.

30 Q. Mr. Stenason, I am intrigued with you
saying you would like to examine it. Is the Commission



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to conclude that you haven't examined it up until now?

A. The legislation in Alberta respecting taxes?
No, I haven't.

Q. Have you not examined or tested by looking at the statutes and looking at the municipal records the soundness of your basic assumption that your taxes in Alberta are 100 per cent or 70 per cent variable?

A. I have not reviewed the statutes.

Q. What test did you make to find out whether this was a sound factor that you were applying?

A. On taxes?

Q. Yes.

A. There were two tests, Mr. Frawley. The first test was to take the total property municipal taxes paid in the provinces and prairie and Pacific regions less the taxes on the solely related lines. These were allocated on a gross ton basis between passenger and freight service. The freight portion of this was then distributed on a net ton basis between grain and other freight traffic. The taxes on the solely related lines were added back to that freight apportionment, and we came up with a slightly higher figure than the amount charged in the precis against the property taxes. That was one test.

An additional test -- and Mr. Edwards can speak to this better than I can -- is the relationship of traffic in general expenses to railway operating expenses over a long-term period, and this was basic to the development of variability for the group of expenses as a whole.

Q. Does that mean that if I take any small branch line in the province of Alberta, where there is not



1
2 a passenger train -- there hasn't been one for, say,
3 perhaps a couple of years -- nevertheless, your first
4 step was to apportion these taxes to that municipality,
5 that you then allocated something against passenger of
6 that \$1000 per mile tax? . .

7 A. The taxes of the solely related lines
8 were lifted out of the tax apportionment before it was
9 made.

10 Q. What variability factor did you apply with
11 the traffic?

12 A. That would be 100 per cent variability
13 factor, with this particular category of traffic.

14 Q. If you take that same solely related
15 line I talked about yesterday, from Cremona in the Cross-
16 field section of Alberta and the main line of the C. N. R.,
17 and that is a solely related line, you say if that munic-
18 ipality -- just the one municipality would be there --
19 and if they have a tax against the 20 miles there on the
20 basis of \$1000 per mile under The Railways Assessment Act
21 of Alberta, which has been there since 1897, perhaps before
22 the line was ever built, you say notwithstanding that
23 fact you have put that down as 100 per cent variable with
24 the traffic.

25 A. With the study traffic. It is a solely
26 related line.

27 Q. I put it to you, Mr. Stenason, that you have
28 to pay that tax based on \$1,000 of assessment per mile,
29 you are required to pay it whether or not a single car
30 of grain goes over that line in any year and in any month;
you still have to pay that tax.



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A. We are talking about the line as a whole.

Q. I am talking about that branch line.

A. Yes, the tax would --

Q. If you pay just a few dollars -- I don't know how much it would be (depending on the mill rate) -- but whatever few dollars per year you did pay to the municipality at Cremona for that 20 miles based on a maximum assessment of \$1000 per mile, I put it to you that you would pay that regardless of whether a single car moved over that track, and you still say it is 100 per cent variable with the traffic.

A. With the category of traffic under study. It is a solely related line.

Q. Will you take another line. I am looking at this map, but any map will do, showing your lines in Alberta. There is another line that is not solely related. Take the line that runs from Halkirk to Cordell. Now, that is not a solely related line?

A. No, sir.

Q. Now, I assume the same thing, that there is a municipality there collecting taxes from the Canadian Pacific Railway on the basis of a maximum assessment of \$1000 per mile. I put it to you that that tax is payable whether you run passenger trains or no passenger trains, grain cars or no grain cars; whether you have a dollar's worth of business from one year's end to another, you still pay that tax.

A. Well, the tax would be paid on that, presumably.

Q. Paid on what?



1
2 A. Based on the \$1000 per mile.

3 Q. I put it to you, how can you reconcile that
4 with the proposition that it is 100 per cent variable with
5 traffic? I may be just completely stupid: I cannot
6 see any relationship between the tax that you pay to that
7 municipality in Halkirk for that 20 miles of branch line
8 and variability of traffic?

9 A. Well, it is a function of density again.
10 The amount of taxes which are reflected in the studies
11 could be a function of density.

12 Q. I am afraid you will have to explain that
13 to me. What do you mean by "function of density"?
14 I am talking about the tax on the line from Halkirk to
15 Cordel..

16 A. It is taken as a whole overall as a function
17 of density. It could be with estimates of traffic over the
18 long-term that there would be an adjustment of these tax
19 rates.

20 Q. You insist on repeating it is a function
21 of density, and I will have to repeat asking you how it is
22 a function of density on the line from Halkirk to Cordel.
23 Is it or is it not a function of density on the branch
24 line from Halkirk to Cordel?

25 A. No, not on that particular line.

26 Q. Now, have you also been made aware of the
27 fact that the Canadian Pacific Railway Company pays no
28 taxes on its main line from the point that it enters the
29 province of Alberta at Walsh up to the time it leaves the
30 province of Alberta somewhere at the summit in the vicinity
of Hector in the Rocky Mountains?



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2 A. Yes, I am aware of that.

3 Q. How much is represented by main line and
4 how much by branch line? I am speaking of the units of
5 grain study traffic, and I put it to you that the figure
6 you have already put on the record is somewhere in the
7 vicinity of 80 per cent.

8 A. Yes. You have this in correspondence
9 from me, Mr. Frawley. Now, that, I would like to point
10 out, is on all main lines, secondary main lines, as well
11 as the primary main line.

12 Q. Not, I put it to you, following that,
13 that the apportionment of taxes approximately of
14 \$875,228 is an apportionment to grain of the total tax
15 other than income taxes?

16 A. Yes.

17 Q. Now, will you tell me how this apportion-
18 ment to grain of \$875,228 can be justified when the
19 Canadian Pacific main line is tax exempt throughout its
20 whole length in the province of Alberta?

21 A. I can only refer again to this test in
22 which the taxes in the Pacific and prairie regions,
23 the taxes paid were prorated first of all between passenger
24 and freight to get the freight portion and, secondly,
25 within freight and grain and other types of freight traffic,
26 which developed a proration of taxes which was greater than
27 the amount which has been charged for property and
28 municipal taxes.

29 Q. You are simply putting on the record
30 that which you put on the record a moment ago, and it
doesn't seem to be responsive to my present question.



1
2 In view of the fact that the main line
3 attracts in importance and units, grain study traffic,
4 the main line attracts 80 per cent --

5 MR. SINCLAIR: With respect, he told you not
6 to make that statement. He said that the ratio was
7 based on main line but not just primary main line.
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(Page 12169 follows)

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2 MR. FRAWLEY: Let us find out what kind of
3 lines the witness is talking about?

4 MR. SINCLAIR: He told you.

5 MR. FRAWLEY: Well, I am sure he will tell
6 me again.

7 Q. What are these other than main lines?
8 Because I call your main line the one that runs from
9 Medicine Hat, roughly, to Field.

10 A. No. There is the northern main line
11 which runs from Winnipeg up to Edmonton; Portage la
12 Prairie to Wetaskiwin.

13 Q. You are talking about the line that
14 runs from about Macklin on the Saskatchewan side into
15 Edmonton via Wetaskiwin?

16 A. Yes.

17 Q. That is the one from which recently you
18 have been allowed to withdraw passenger service?

19 A. Yes. Edmonton to Calgary.

20 Q. You call the Calgary and Edmonton Railway
21 a main line?

22 A. That is a secondary main line -- pardon
23 me: It is a main line. The line running from Dunmore
24 through Lethbridge to the Crow's Nest in Alberta.
25 The line from Fort Macleod up to Calgary.

26 Q. That is part of the Calgary and Edmonton?

27 A. I am not certain of the ancestry of
28 the line. Those are the secondary main lines in Alberta
29 but there are, of course, secondary main lines in other
30 parts of the Prairies.



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2 THE CHAIRMAN: For the record, what is the
3 one in Saskatchewan?

4 MR. STENASON: In Saskatchewan that is a
5 portion of the northern main line which passes through
6 Saskatchewan, plus the line from Pasqua near Moose
7 Jaw down to North Portal; that is a secondary main
8 line. In Manitoba the line to Amerston as well as
9 the northern part of that line which is in Manitoba.

10 MR. FRAWLEY: Q. Mr. Stenason, I have
11 another question for you: Will you tell me the
12 percentage of the service units that are to be
13 allocated to movement from Calgary to Coquitlam and
14 from Winnipeg to the Lakehead? What would be the
15 percentage, because that is certainly main line --
16 that is main main line. What percentage of the study
17 traffic and the cost of moving it would be attributed
18 to those lines -- Winnipeg to the Lakehead east,
19 and Calgary to Coquitlam west?

20 A. Do you have a figure in front of you,
21 Mr. Frawley?

22 Q. No, I do not, or I would certainly give
23 it to you.

24 A. Approximately one-third of the total volume
25 of grain moves to Vancouver, and approximately two-
26 thirds to Ford William.

27 Q. No, that is not the figure I meant. I
28 am sure you will get the figure for me. I want to know
29 what percentage -- perhaps the more intelligent
30 way to do it is to ask you to look at Page 13 of your



1
2 own exhibit, C. P.VII. You will find there a table
3 showing the units of transportation service of the
4 study traffic. The revenue ton miles--what percentage
5 of the portion of that figure, which is 7,037,405,
6 what part of it would be represented by the movement
7 Calgary to Vancouver and Winnipeg to the Lakehead?

8 A. We will have to develop that.

9 Q And the same thing for the gross ton
10 miles and loaded car miles and all the other units
11 set out on that table on Page 13.

12 MR. SINCLAIR: With respect, Mr. Chairman,
13 while the witness has said he can do it, we can do a
14 lot of work and we have done a lot of work, but whether
15 this is necessary for any useful purpose, or
16 whether it could be done by the people themselves -
17 but, I think the purpose of it should be stated,
18 and I don't think we should just willy-nilly be asked
19 to do things. I don't know how much work is involved.

20 MR. FRAWLEY: Let us see how willy-nilly
21 this is. The witness comes into the box and admits
22 insofar as the kind of taxes which the C.P.R. pays
23 to the municipality in the Province of Alberta under
24 the two statutes that he really didn't know about
25 those two statutes. I called to his mind the fact
26 that the main line of the Canadian Pacific Railway
27 Company is exempt through the Provinces of Alberta,
28 Saskatchewan and Manitoba. Naturally, I would like
29 to know how much of those taxes that he has assigned
30 to grain as being 100 per cent variable, or 70 per cent



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2 variable, is attracted by the main line of C.P.R.
3 I suggest that the breakdown and the information I
4 am now asking for is directly pertinent to his
5 very answers in the box this morning, and that is
6 the reason why I thought we should have that figure.

7 THE CHAIRMAN: Can you give the answer, Mr.
8 Stenason?

9 MR. STENASON: Not at this point.

10 THE CHAIRMAN: Can you give it at all?

11 MR. STENASON: Yes. We would have to go right
12 back into our working papers and split out all of
13 these things.

14 THE CHAIRMAN: Would it mean a great deal of
15 work?

16 MR. STENASON: I would estimate that it would
17 mean probably about three days.

18 MR. SINCLAIR: With all due respect to my
19 friend, why do you have to have all the things he
20 asked for to do that? There are other ways that can
21 be done very, very much more simply, and I am sure
22 could be suggested to him. We are quite prepared,
23 Mr. Chairman ---

24 THE CHAIRMAN: Well, the parties, I think,
25 can get together.

26 MR. FRAWLEY: Mr. Chairman, it is just as
27 simple as this: It seems to be a pretty obvious
28 thing that it would necessarily follow that as to the
29 part of the lines of the Canadian Pacific Railway,
30 where they are paying no tax -- and thanks to the



1
2 keen contest the Canadian Pacific put up in the
3 Privy Council, not even business tax can be
4 assessed. Because they pay no taxes on the main line
5 of any kind -- they pay in British Columbia but we
6 won't discuss why they should do that and not in
7 Alberta, Manitoba and Saskatchewan, but they do not
8 pay in Alberta, Manitoba and Saskatchewan. Because
9 they do not, what is this question about 100 per
10 cent variable, or 2 per cent variable? I am calling
11 that to the attention of the witness and I think the
12 Commission is entitled to know to what extent that
13 takes care of these taxes apportioned against grain.

14 MR. SINCLAIR: In light of the charter
15 exemption on the main line, as defined in the statutes,
16 and in light of the fixed assessments that are
17 involved in certain of the Western provinces, I think
18 we should take a look at this, Mr. Chairman, and see,
19 by giving weight to those, whether the figure in the
20 cost study should be changed and, if so, we will
21 be very glad to do so.

22 MR. FRAWLEY: I Will accept that.

23 THE CHAIRMAN: We will agree on that.

24 MR. FRAWLEY: Yes, we certainly will.

25 MR. SINCLAIR: I will send a memorandum to
26 the Commission.

27 MR. FRAWLEY: Well, that is just put on the
28 top shelf for the time being.

29 MR. SINCLAIR: I don't know what that means.

30 MR. FRAWLEY: It means I am not going to



1
2 pursue it at all. Perhaps I am too hopeful -- it
3 means this may drop out of the cost study altogether,
4 which is what it should do.

5 MR. SINCLAIR: I can assure my friend taxes
6 can not drop out unless something goes in.

7 MR. FRAWLEY: When my friend got up the last
8 time he spoke and used language which indicated he
9 knows this subject very well. He spoke of taxation
10 and the effect of the charter exemptions. That is
11 the problem, and my friend knows it very well.

12 THE CHAIRMAN: Where are we now?

13 MR. FRAWLEY: We are leaving that subject now.

14 MR. SINCLAIR: I am preparing a memorandum
15 to take that fact into account.

16 THE CHAIRMAN: Fine.

17 MR. FRAWLEY: Q. Would you look at your
18 annual report for 1958, Mr. Stenason?

19 A. What page are you at?

20 Q. Page 18. I am reading there a bit on Page
21 18 beginning with the reference to automatic block
22 signals:

23 "Automatic block signals were installed on
24 53 miles of road bringing to 3,267 the
25 total mileage so equipped. The installation
26 of a centralized traffic control system was
27 completed on an 87 mile section of the line
28 between Montreal and Toronto which permits
29 the direction by means of remotely controlled
30 signals and switches of trains over the main



1
2 line or into sidings, thereby increasing
3 the efficiency and capacity of the line."

4 This was written on March the 9th, 1959 and I suppose
5 there has been considerable improvement in those
6 things since then -- considerable extensions of
7 those installations?

8 MR. SMITH: There has been some extension,
9 Mr. Frawley.

10 Q. That statement there shows that installations
11 of modern train control systems vary from region to
12 region and from subdivision to subdivision?

13 A. Yes, they would presumably reflect
14 the density and operating conditions across the
15 system.

16 Q. Well, as a matter of fact, you are
17 answering my question, and it is not whether it is
18 implicit in that, or it is just sort of common sense:
19 the installation of your train control systems,
20 your new train control systems, vary from region to
21 region?

22 A. Yes, they do.

23 Q. And from subdivision to subdivision?

24 A. Yes.

25 Q. Some have them and some don't have them?

26 A. Yes.

27 Q. And it follows, doesn't it, that the
28 irreducible minimum maintenance per track mile for
29 a subdivision with these modern devices far exceeds
30 the minimum maintenance which is required for what



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I might describe, without being too poetic, as a little, backwoods, run-down streak of rust.

A. That is a terrible way to describe a branch line.

Q. Especially a Canadian Pacific branch line.

MR. SINCLAIR: Especially where we are paying \$1,000.00 a mile.

MR. FRAWLEY: Yes, but my friend was very happy to keep on paying that \$1,000 a mile and never challenged it at all. He only challenged it when Saskatchewan wanted to make it two, three, or four thousand.

MR. SINCLAIR: My friend is now helping me and saying there is variability in some of these.

MR. FRAWLEY: When you take this second look you will bring it all out. We will hand it on to Saskatchewan, because they are absent.

MR. STENASON: I would say there is a minimum of signalling on the branch lines because of the light density, and that the more extensive signal systems on main lines are a function of the density over the main line, and that the irreducible minimum level of maintenance, the figure of irreducible minimum level of maintenance that we are really concerned with is the level of maintenance in which all effects of density and of volume have been removed, and therefore the signalling system would come from volume. It would not be part of this irreducible minimum level of maintenance. In other words, given a long period of



1
2 adjustment and assuming that the traffic volume
3 on a very heavy density line were to disappear
4 almost, then, over the long term, the signalling
5 system would disappear, and so forth.

6 Q. To borrow a colourful phrase from my
7 friend Mr. MacKimmie, let us be sure we are on the
8 same wave-length: The irreducible minimum level
9 for a track mile out in Southern Alberta -- out in
10 Manyberries -- I put it to you, is less than the
11 irreducible minimum level of maintenance per
12 track mile for a subdivision, say, that runs between
13 Winnipeg and Brandon?

14 A. No, I would disagree because the concept
15 here is the long-term adjustability, and if we had
16 the same traffic volume between Brandon and
17 Winnipeg as we had in the south ---

18 MR. SINCLAIR: In the Manyberries.

19 MR. STENASON: Yes. ...then I would expect
20 the same level of maintenance expense.

21
22 Page 12179 follows.
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2 THE CHAIRMAN: Gentlemen, Mr. Frawley was
3 called to the telephone. I might say that the Commission
4 has agreed that we shall sit in July in Montreal rather
5 than the city of Ottawa.

6 MR. SINCLAIR: Thank you very much. I know
7 that the decision of the Commission is at the request of
8 counsel in which we all concur and we appreciate the
9 consideration that you have given to us in that regard.

10 There were some requests made and perhaps I
11 can take advantage at this time to answer some of those.
12 The people who are with me have dealt with these and
13 while Mr. Frawley is away I can perhaps give some of this
14 information.

15 Volume 66, page 11676, line 18:

16 "Q. Can you tell us how far back you went with
17 this time series analysis?

18 A. There was no time series analysis on locomotive
19 repairs. The time series analysis on freight cars
20 was taken back to the mid-thirties -- I will have
21 to check that."

22 There were some other questions and he was
23 asked to check it and Mr. Stenason has done so and informs
24 me that the time series analysis worked from 1926.

25 Volume 66, page 11684, line 14:

26 "Q. And where the taxable property is located by
27 provinces.

28 MR. SINCLAIR: You mean by amounts and by provinces?

29 MR. MAURO: Yes, amounts would be fine.

30 MR. SINCLAIR: We have to break them out.

THE WITNESS: We have to prepare that for you,



1
2 "particularly in the breakdown by province."

3 The breakdown is provided in schedule 19,
4 D. B. S. report 1958, that is the document to which I was
5 referring and it is all there.

6 In volume 67, page 11858, line 5, over to page
7 11860, line 19.

8 COMMISSIONER BALCH: What page?

9 MR. SINCLAIR: Volume 67, page 11858, line 5
10 and it goes over to 11860, line 19. I said it was under
11 four per cent and Mr. MacKimmie asked me to calculate it,
12 he would take it that it was under four per cent, and
13 I take it this is the actual return earned and not the
14 permissive level or anything of that nature, actual return
15 earned.

16 THE CHAIRMAN: I think that is what he meant.

17 MR. SINCLAIR: He said he would take it as
18 under four per cent if it was not under three, and I told
19 him I would give it to him. I think it is in the report
20 and I have not tried to make it very fine, but it is 2.7.

21 In volume 67, page 11868, line 15:

22 "A. Fort William, the active car days are 17.5,
23 and Vancouver 23.4. Now, to that is added an
24 idle ratio to reflect the days during the year that
25 the car is idle. I haven't worked out the idle
26 ratio separately for the two movements. I can do
27 that if you like."

28 The idle ratio is 58.14 per cent, that is the
29 answer.

30 Volume 67 at page 11904, line 7, and this is
Mr. Mauro:



1
2 "Q. I am advised that 80 per cent to 85 per cent
3 of the crew wage and fuel costs on the branch line
4 way trains are incurred in road movement rather
5 than switching, as you yourself have computed them
6 in the study?

7 A. I would have to check these figures, Mr. Mauro."

8 The figures have been checked and the suggestion
9 made is correct.

10 Volume 67, page 11950, line 20:

11 "MR. DICKSON: Q. Did I understand the answer to
12 the question as to the average time for a car of
13 grain moving from Winnipeg to Fort William to be
14 four days?

15 A. Well, this was an initial -- well, we will
16 have to get that for you."

17 Then also at line 29:

18 "I wonder if you could let me have that figure,
19 also the most rapid movement that you would normally
20 expect, and the most lengthy time that might elapse
21 in the movement?"

22 Now, Mr. Chairman, we have made certain checks
23 and I think what I can say here is that as was brought
24 out at another time by Mr. Mann, there is confusion as
25 to average times between the points mentioned and what I
26 think you said ideal running time.

27 COMMISSIONER BALCH: I notice something in
28 there too that I was supposed to have said that should
29 be changed:

30 "I understand, again, that you fill out at Winnipeg
with grain -- fill out the simple train with grain?"



1
2 It should be 'symbol'.

3 MR. SINCLAIR: There are a number of times in
4 the transcript that the word 'simple' comes in. We have
5 put in errata sheets in a number of places.

6 Line 29, volume 67, 11950 -- Murillo to
7 Fort William -- we have taken that, as Mr. Chairman will
8 know, as a station close -- that happens to some figures
9 we have and I think it meets the point.

10 THE CHAIRMAN: Very close.

11 MR. SINCLAIR: Running time under scheduled
12 time 3.8 and number of days, date loaded to date unloaded,
13 10.7.

14 Volume 68, page 12031, line 2:

15 "Have you got comparable figures for 1957, say,
16 and 1959?"

17 This is the question of empties and I think the
18 figures in the record for 1958 were 20,000 and 5,000 --
19 we could not get them for 1959, as we pointed out,
20 for 1957, 23,500 and 2,800.

21 There are still a few things to be done.

22 MR. FRAWLEY: Q. Now, Mr. Stenason, on this
23 question of comparing minimum maintenance, perhaps it
24 would be most useful if we just shifted to another part
25 of your line and let us compare the Carberry subdivision
26 with the subdivision between Field and Revelstoke and I
27 think it is called the mountain subdivision.

28 MR. SINCLAIR: Perhaps Mr. Bentham could
29 answer the question.

30 THE CHAIRMAN: Very well.

MR. FRAWLEY: Q. Now, will you give me or



1
2 would you give me the same answer, is the irreducible
3 minimum maintenance cost on the mountain subdivision
4 and on the Carberry subdivision identical?

5 MR. BENTHAM: Yes, sir. In view of the fact
6 that what is contained in this irreducible minimum
7 maintenance cost I think it is equally applicable to both
8 subdivisions regardless of the different terrain through
9 which they operate.

10 Q. There is a qualification that you found
11 necessary to make. What do you mean by "in view of
12 what is contained in this irreducible minimum maintenance
13 cost"? I am just talking to you as the superintendent
14 of track?

15 MR. SINCLAIR: Engineer of track for the
16 Canadian Pacific system.

17 MR. FRAWLEY: Well, Mr. Bentham, I do not know
18 anyone that will be better informed. Now, regardless
19 of Mr. Stenason's sophisticated language, would you please
20 tell me whether or not the minimum maintenance per mile
21 of track on the Carberry subdivision which runs between
22 Winnipeg and Brandon is the same as that on the line which
23 runs roughly from Field to Revelstoke -- is that what you
24 call the mountain subdivision?

25 MR. BENTHAM: Yes.

26 Q. That is the mountain subdivision?

27 MR. BENTHAM: Yes.

28 Q. The Laggan subdivision is from Calgary to
29 Field?

30 MR. BENTHAM: That is right.

Q. What is your answer to that?



1
2 MR. BENTHAM: My answer is that this minimum
3 maintenance reflects the maintenance cost that would be
4 incurred in order to keep a line in operating condition
5 with a negligible amount of traffic actually operating
6 over it.

7 Q. I won't try to repeat your words, but
8 those words you have just used are equally applicable
9 on the Carberry subdivision as the mountain subdivision?

10 MR. BENTHAM: Well, yes, sir, if there is
11 no traffic moving over either subdivision or a negligible
12 amount, it has none of the expenses which are incurred
13 as the result of traffic operating over it and I am
14 considering now your surfacing and lining and the wear
15 and tear on the track itself, they are not going to be
16 incurred in either territory if no traffic is operating.
17 The expenses which are incurred are such expenses as
18 keeping the track free of weeds and brush and maintaining
19 your highway crossings, maintaining your switches and
20 turnouts and such items as that which are not affected
21 to any extent by traffic or by the type of terrain through
22 which the track goes.

23 Q. Are you saying that the number of dollars
24 that you would spend for irreducible minimum maintenance
25 in the Carberry subdivision are identical with the number
26 of dollars you would spend on the irreducible minimum
27 maintenance on the mountain subdivision?

28 MR. STENASON: Where no traffic was operating
29 I would say, yes, sir, that is what the irreducible
30 minimum maintenance cost is intended to reflect.

Q. Well, now, I understand that the amount



1
2 we were looking for is the number of dollars that had to
3 be spent to make the subdivision operable. If you are
4 talking about that kind of expenditure of money, are
5 you saying that the same number of dollars would be spent,
6 would have to be spent on the Winnipeg branch as against
7 Field to Revelstoke?

8 MR. STENASON: I do not see any reason why
9 not, sir.

10 Q. All right. Now, Mr. Bentham, that amount
11 is right at the figure of \$9,672.85 which we find in
12 Exhibit 67 revised, line 12 -- I have given you the
13 wrong -- it is \$1,379.78.

14 MR. STENASON: That is the developed unit
15 cost including all your supervisory and overhead expenses,
16 it is not the -- it does not in any way or, closely, I
17 should say, reflect the actual costs which are incurred
18 out on the line because, as you realize, you have your
19 supervisory overhead and depreciation expenses included
20 in the amount.

21 Q. That is right, but it is the irreducible
22 amount that is necessary to make the line operate?

23 MR. STENASON: Yes, sir.

24
25 (page 12189 follows)
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2 Q. And it is the same amount for the
3 mountain subdivision as for the Carberry subdivision.

4 MR. BENTHAM: Yes, other conditions are
5 reflected in the unit cost of unit of traffic which we
6 have taken as gross ton miles.

7 Q. Now, Mr. Bentham, are you aware and are
8 you familiar with the exhibits which were filed by
9 Canadian Pacific in the mountain differential case?

10 MR. BENTHAM: No, I am not familiar with these.

11 Q. The first one I am going to show you
12 is Exhibit 40, and as there is only one copy of each
13 I will give it to you. I call your attention to the
14 fact that it discloses that treating with account No. 208
15 and account 206, 208 being bridges, trestles and culverts,
16 and 206 being tunnels and subways, the cost per mile of
17 road, B. C. against prairie, in 1943 there was an
18 excess cost per mile of road of \$98.64, excess of
19 B. C. over prairie, B. C. being \$125.66 and prairie
20 \$27.02; and not reading 1944, 1945, 1946 and 1947, the
21 concluding figure is a five-year average, and the cost
22 per mile of road, B. C. \$110.98, prairie, \$27.45, an
23 excess in British Columbia of \$83.53, and that is on
24 account No. 208. Giving a five-year average, account
25 No. 206, tunnels and subways, in British Columbia it
26 was \$33.15, prairies, \$0.70, with an excess to B. C.
27 of \$32.45.

28 THE CHAIRMAN: I understand that was filed
29 in the mountain differential case.

30 MR. FRAWLEY: Yes, and I am going to file it
here and supply a sufficient number of reproductions.



1
2 Q. I will show you Exhibit 98 filed in the
3 mountain differential case, and Exhibit 98 which I have
4 in my hand and which I will show you shows that more
5 expense was incurred for renewals per mile of track --
6 that was the subject matter of this particular exhibit;
7 it is called "Ties Laid in Track Previously Constructed",
8 and the period covered was 1932 to 1947. I put it to
9 you, Mr. Stenason and Mr. Bentham, that more expense was
10 incurred for renewals per mile of track in mountain terri-
11 tory. For example, in British Columbia the total for
12 the 15 years was \$3,986.00, new ties per mile in the
13 period 1932 to 1947; in Manitoba the new ties per mile
14 were \$2,108.00; in Saskatchewan \$2,563.00, in Alberta
15 \$2,972.00, and the British Columbia figure again, \$3,986.00.

16 The next exhibit I want to call to your atten-
17 tion is Exhibit 100 in the mountain differential case,
18 and that was described as Canadian Pacific Railway
19 Company: Tons of New Rail Laid in All Tracks, 1932 to
20 1947, and that shows that over the period 1932 to 1947
21 the percentage of track miles laid to miles maintained
22 was: British Columbia, 37.20 per cent; Alberta, 18.75
23 per cent; Saskatchewan, 12.43 per cent; Manitoba, 16.85
24 per cent.

25 Now, the first thing I would like to do,
26 Mr. Chairman, is to have these marked as exhibits in
27 this proceeding, and then we will have them dealt with.

28 THE CHAIRMAN: Now, these exhibits were filed
29 on behalf of --

30 MR. FRAWLEY: They were filed on behalf of
Canadian Pacific when they were endeavouring to show



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2 that it cost a great deal more to operate the Canadian
3 Pacific in the mountain territory and therefore the
4 mountain rates should not be removed from the rate
5 structure, and they were not successful in that.

6 Exhibit 40 in the mountain differential case
7 will become Exhibit 134, and Exhibit 98 in the mountain
8 differential case will be Exhibit 135, and Exhibit 100
9 in the mountain differential case will be Exhibit 136.

10 ---EXHIBIT NO. 134: Exhibit 40 in Mountain
Differential Case.

11 ---EXHIBIT NO. 135: Exhibit 98 in Mountain
Differential Case.

12
13 ---EXHIBIT NO. 136: Exhibit 100 in Mountain
Differential Case.

14
15 MR. FRAWLEY: Q. Now, I put it to you,
16 Mr. Bentham, that it follows that if the normal maintenance,
17 which is the subject of these costs, is higher on the
18 mountain subdivision than on the Carberry subdivision,
19 which is abundantly clear from the exhibits filed, then
20 the irreducible minimum which Mr. Stenason has developed
21 for the purpose of putting against grain, putting costs
against grain, is also necessarily high.

22 MR. BENTHAM: I don't agree that that neces-
23 sarily follows, Mr. Frawley.

24 Q. Does it follow at all? You simply say
25 it does not follow or it doesn't necessarily follow,
26 which means it may follow or it may not.

27 MR. BENTHAM: I would say that it does not
28 follow.

29 Q. You would say that it does not follow.
30



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2 MR. BENTHAM: Just because the total expenses
3 in one territory are greater than the total expenses
4 in another territory is no reason why there should be
5 any difference in the irreducible maintenance cost.

6 Q. Mr. Bentham, you are not agreeing with me
7 that these exhibits were filed by the Canadian Pacific
8 in the mountain differential case to show that there were
9 costs in operating the railway in the mountains which did
not exist in the prairies?

10 MR. BENTHAM: I will agree with you that the
11 operating and maintenance costs in the mountains are
12 higher than they are in the prairies under certain con-
13 ditions, but the irreducible maintenance cost is not
reflected in that condition.

14 Q. This irreducible cost is just a sophis-
15 tication which comes out of Mr. Stenason's study.

16 MR. BENTHAM: Yes, and a good one. I don't
17 know in what light you are using the word "sophistication".
18 It is a quantity which evolves from the multiple
19 regression analysis.

20 Q. And it gets back to that business of
size related costs.

21 MR. BENTHAM: I think that is what we are
22 discussing.

23 Q. This is the thing that we don't find in
24 any proceeding before the Interstate Commerce Commission
25 that anyone can tell us about.

26 MR. BENTHAM: Well, I am not familiar with
27 any proceedings before the I. C. C., sir.

28 MR. STENASON: We have Dr. Edwards here.
29
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2 MR. FRAWLEY: Dr. Edwards is not on the stand.

3 MR. SINCLAIR: No, but I think this was con-
4 trary to the evidence given, that there was this factor
5 in the I. C. C. proceedings, the grain case and the
6 divisions case.

7 MR. FRAWLEY: Q. This is the first time that
8 anybody has ever attempted to develop the costs of moving
9 export grain in western Canada by this method.

10 MR. BENTHAM: Well, I am not qualified to make
11 a 'yes' or 'no' on that.

12 Q. I put it to you that the only other
13 studies that have been made so far to cost grain in
14 western Canada, if they were made, were made under the
15 I. C. C. formula.

16 MR. BENTHAM: All I can say is that this is
17 the first study I have been connected with, and I am
18 not familiar with the cost of grain in western Canada.

19 Q. That applies also to Mr. Stenason.

20 MR. SINCLAIR: We put this on the record.

21 MR. FRAWLEY: This is cross-examination.
22 If you would be so very kind as to bear with me. It
23 is all very well your questioning me and telling me this
24 was put on. This is a pretty difficult task, examining
25 these two expert railway witnesses.

26 Q. Am I not right, Mr. Stenason, that this
27 is the first cost study for costing the grain moving to
28 export positions in western Canada that you have been
29 connected with?

30 MR. STENASON: Yes, that is correct.

Q. Now, Mr. Bentham, I want to ask you a



1
2 question, because you are here as engineer of track.
3 You are not the author of this cost study, Mr. Bentham?

4 MR. BENTHAM: Oh, I don't have that honour,
5 sir.

6 Q. I compliment you on putting it that way.
7 But you are the engineer of track and you know what it
8 costs to maintain the line from the Dominion Atlantic
9 to the Northern Alberta Railway.

10 MR. BENTHAM: Well, we have an awful lot of
11 track on the railway, and I can't tell you the cost of
12 the whole track, of the 23,000 miles we have on the system.

13 Q. But it is your job to superintend the
14 maintenance of that track?

15 MR. BENTHAM: In a broad sense.

16 Q. In a broad sense; in a Windsor Station
17 sense.

18 MR. BENTHAM: I am engineer of track. I
19 am not a track supervisor and I am not a track maintainer.

20 Q. It all channels back to you, doesn't it?

21 MR. BENTHAM: I wouldn't say it all channels
22 back to me. The more important matters do channel back
23 to me.

24 Q. Examining from the standpoint of the
25 day-to-day knowledge that you have of the operations of
26 Canadian Pacific Railway and the monies that you spend
27 on this subdivision, that subdivision and the other
28 subdivision, are you saying that the irreducible minimum
29 for track maintenance of the Carberry subdivision and
30 the mountain subdivision are the same?

MR. BENTHAM: The irreducible minimum of the



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maintenance cost of the two are the same, yes.

Q. You have the curves and the grades in the mountains that you haven't got on the Portage plain.

MR. BENTHAM: That only comes into account when you start operating traffic over those lines.

Q. You are operating traffic in the Carberry subdivision and the mountain subdivision now.

MR. BENTHAM: But the irreducible maintenance cost does not reflect conditions under which traffic is operating.

(Page 12199 follows)



1
2 Q. Do you have any worse experience for
3 washouts and rock falls on the Mountain Subdivision
4 as against the Carberry Subdivision?

5 MR. BENTHAM: Well, it would certainly have
6 more rock falls and snow slides. I don't think
7 we have ever had a snow slide there or a rock fall;
8 we have had washouts on Carberry, though.

9 Q. You have had them on the Mountain
10 Subdivision?

11 MR. BENTHAM: Yes.

12 Q. And on the Laggan Subdivision?

13 MR. BENTHAM: Yes.

14 Q. This irreducible minimum we are talking
15 about deals with such things as fences and snow sheds.
16 Do you say the irreducible minimum is the same though
17 not more on the Mountain Subdivision than on the
18 Carberry Subdivision?

19 MR. BENTHAM: Provided both subdivisions
20 are fenced to the same extent, or to a comparable
21 extent, I would say all maintenance costs of these
22 fences, once they are installed, would be relatively
23 the same.

24 Q. I am talking about snow sheds.

25 MR. BENTHAM: Snow sheds?

26 Q. Yes, snow sheds; that is the word
27 written in Exhibit 67. Is the irreducible maintenance
28 cost of snow sheds the same on the Mountain Sub-
29 division and the Laggan Subdivision as it is in the
30 Carberry Subdivision or on the Manyberries Subdivision



1
2 in Southern Alberta?

3 MR. BENTHAM: Well what I would say to that,
4 sir, is that on this regression analysis for account
5 221 where we have a figure of \$59.00 per mile of
6 track as the irreducible minimum maintenance cost
7 per mile of track, that particular account is explained
8 by so many dollars constant expense plus so many
9 dollars of expense per mile of fence on any particular
10 line. That portion of the expense which can be
11 explained by the miles of fence on the line is
12 reflected in the unit cost per mile of fence which
13 evolves from the regression analysis. Any other
14 differences in conditions which cannot be reflected
15 by the miles of fence on those two lines will fall
16 into the constant, if there are any other conditions
17 which cannot be reflected by the number of miles of
18 fence. So, in that case, if you have snow sheds on
19 the Mountain Subdivision and none on the Carberry
20 Subdivision, I would say to you that there is no
21 portion of the expense for maintaining the snow
22 sheds included in the irreducible minimum maintenance
23 cost.

24 Q. Well now, Mr. Bentham, you came here
25 as the Engineer of Traffic, did you not?

26 MR. BENTHAM: I did, sir.

27 Q. And I observe that when I asked you
28 the question, which I will put again -- are you saying
29 that the irreducible minimum maintenance costs
30 for snow sheds is the same or is not the same in the



1
2 Mountain Subdivision as compared to the Carberry
3 Subdivision -- I put it to you the only way you could
4 answer my question was to say that after you have
5 applied the multiple regression procedure there
6 may be some similarity. That was the substance
7 of your answer to me, wasn't it?

8 MR. BENTHAM: I don't quite follow you.

9 Q. I put it to you, if I asked you, as
10 an engineer -- which is what you are here for, as
11 I understand it -- I put it to you that looking at
12 the simple hard facts -- and you are very familiar
13 with the terrain which I am talking about, the
14 Mountain Subdivision runs from Field and on to Revel-
15 stoke -- you are telling me that the irreducible
16 minimum of operating snow sheds on that line is
17 just the same as operating in Manitoba in the Carberry
18 Subdivision. Just forgetting Mr. Stenason and all
19 his works, you tell me they are just the same?

20 MR. BENTHAM: Snow sheds? No, sir, because
21 we have no snow sheds on the Carberry Subdivision.

22 Q. If I tell you the maintenance costs,
23 normal or minimum, are not the same on the Mountain
24 Subdivision as they are on the Carberry Subdivision,
25 as an Engineer of Track, will you tell me I am right
26 about that ?

27 MR. BENTHAM: I can't tell you that. The
28 irreducible minimum maintenance costs on the two
29 subdivisions that we have shown on these exhibits --
30 I can't tell you there should be any difference in



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them on those two territories to which you refer.

Q. Mr. Bentham, the purpose of the Canadian Pacific Railway's case in the Mountain differential was exceedingly simple: The surcharge should remain on because the cost of operating the railway justified the surcharge.

MR. BENTHAM: The actual cost?

Q. Yes, the actual cost.

MR. BENTHAM: Yes, sir.

Q. Well, I am concerned with the cost that is going against grain, and I am certainly concerned with the actual cost, and not with some sophisticated theoretical cost. So, let us talk about actual cost at the moment.

MR. BENTHAM: Well, if we are talking actual cost, I don't agree we will have to overlook the irreducible minimum maintenance cost, because you can't say that one is the other.

Q. That is not a practical day-to-day situation. It costs so much to keep the Mountain Subdivision -- so many dollars to keep it operable.

MR. BENTHAM: Yes.

Q. And it cost you so many dollars to keep the Woolford Subdivision operable in Southern Alberta which runs from Raley to Whiskey Gap -- it costs you so many dollars for that.

MR. BENTHAM: Yes.

Q. And I say there isn't any comparison between what it costs to operate these two subdivisions:



1
2 am I wrong about that?

3 MR. BENTHAM: In actual cost, no sir, but
4 there is ----

5 Q. No, I am certainly not ---

6 MR. SINCLAIR: Let him finish: "but there
7 is..."

8 MR. BENTHAM: I say there is a difference
9 in the actual cost of maintaining them. I say there
10 is a difference in the actual cost of maintaining
11 those two lines. There is no doubt about that.

12 Q. And when you are taking a car of grain
13 over the Mountain Subdivision, it costs you more
14 than when you take a car of grain from this poor
15 little line in Southern Alberta running from Whiskey
16 Gap to Raley on the Woolford Subdivision? I cannot
17 honestly understand your hesitation as the Engineer
18 of Track for the C.P.R.

19 MR. BENTHAM: I would say there would be
20 more cost involved in the movement of a car of grain
21 over the Mountain Subdivision.

22 Q. If the actual maintenance is very con-
23 siderably more on the Mountain subdivision and the
24 normal maintenance is very considerably more, I would
25 like you to tell me why this thing you call the
26 irreducible minimum level of maintenance is not also
27 a very great deal more on the Mountain Subdivision
28 than on the Subdivision that runs from Whiskey Gap
29 to Raley in Southern Alberta.

30 MR. BENTHAM: Well, I think I have given you



1
2 the answer on that already. The difference is that
3 the actual maintenance costs include costs which
4 are incurred by the traffic operating over the two
5 lines. The irreducible minimum maintenance costs
6 do not reflect expenses incurred by the operation of
7 traffic over the two lines. They only reflect the
8 expenses incurred irrespective of any traffic operating
9 over the lines.

10 Q. Are you also concerned with the amount
11 of investment that went into these two subdivisions?

12 MR. BENTHAM: No sir, that is an accounting
13 matter.

14 MR. SINCLAIR: We now need Mr. Nepveu --
15 either Mr. Stenason or Mr. Nepveu.

16 MR. FRAWLEY: Q. Mr. Nepveu, I was talking
17 to Mr. Stenason about the installation of C.T.C.
18 or automatic control that we find in some subdivisions
19 and we don't find in others.

20 MR. NEPVEU: Yes.

21 Q. I want to take two subdivisions and
22 look at them with you. I want to look at the Carberry
23 Subdivision first and will you tell me on that
24 subdivision what is the per cent route miles
25 double track.

26 MR. SINCLAIR: You need Mr. Smith now.

27 MR. SMITH: It is all double track, sir.

28 MR. FRAWLEY: Q. 100 per cent is the answer,
29 Mr. Smith?

30 MR. SMITH: That is right.



1
2 MR. FRAWLEY: Mr. Smith is what?

3 MR. SINCLAIR: He is the Assistant to the
4 President of Operations, special studies, and former
5 General Superintendent Vancouver, Moose Jaw; Superintendent
6 Lethbridge, Medicine Hat and Calgary.

7 MR. FRAWLEY: A kind of a junior Mr. Emerson?
8 And I certainly don't mean any offence by that.

9 MR. SMITH: I appreciate it, sir.

10 Q. What is the per cent of route miles
11 automatic block signals on the Carberry Subdivision?

12 MR. SMITH: I haven't figured that out, but
13 approximately 50 per cent.

14 Q. I think you are a little better than
15 you should be: I think it is 41.4.

16 MR. SMITH: It could be.

17 Q. What is the permissible speed of passenger
18 trains except, of course, for slow orders? What is
19 the permissible speed on Carberry?

20 A. It is 80 miles.

21 Q. And for mixed and freight, I put it to you
22 it is 50 miles.

23 MR. SMITH: That is right, sir.

24 Q. You carry, of course, main line passenger
25 trains also over the Carberry Subdivision?

26 MR. SMITH: Yes, sir, we do.

27 Q. Let us look at another subdivision,
28 and I have already indicated by some of my earlier
29 questions the one I want to look at. I want you to
30 look at Woolford Subdivision in Southern Alberta.



Stenason Cr-ex 12206
(Frawley)

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That is one of Mr. Stenason's solely related lines and consists of about 20 miles of track running from Raley to Whiskey Gap. Will you please tell me what is the per cent double track on that subdivision?

MR. SMITH: No double track.

Q. None?

MR. SMITH: None.

Q. Will you tell me what is the per cent automatic block signal system on the Woolford Subdivision?

MR. SMITH: No double track, no automatic signals.

Q. What is the permissible speed for passenger trains on the Woolford Subdivision?

MR. SMITH: There are no passenger trains on the Woolford Subdivision.

Q. What is the permissible speed for freight trains on that subdivision?

MR. SMITH: Twenty miles an hour.

Q. And are you aware of the weight which the Woolford Subdivision is permitted to take for diesel locomotives?

MR. SMITH: I don't understand what you mean.

Q. I put it to you that diesel units D.F.A. -- what does that mean?

MR. SMITH: Diesel freight.

Q. That has to do with the kind of controls in the cab, I am instructed?



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MR. SMITH: Yes.

Q. Well, you probably know what I mean:
DFA-16, sub-classes b,c and g. We may as well get
this on the record.

MR. SINCLAIR: We need Mr. Hayward now.

Page 12209 follows



1 MR. FRAWLEY: Well, without the \$250,000.00
2 and the two years, we are trying to do as complete
3 an investigation of your investigation as we can.

4 MR. SINCLAIR: And we are trying to be helpful,
5 that is why we brought them here.

6 MR. FRAWLEY: Always helpful.

7 Q. I am putting to you, Mr. Smith, that
8 diesel cars D.F.A. - 16b, c, g and D.F.B. - 16d must not be
9 operated over the Woolford line, would you agree with that?

10 MR. SMITH: Well I think that is correct but
11 I will check it.

12 Q. Without spending too much time.

13 MR. SMITH: It will only take a moment.

14 Q. All right, I was only asking you to
15 estimate it.

16 MR. SMITH: D.F.A. - 16b, c and g and D.F.B.
17 - 16b must not be operated on this sub-division.

18 MR. SINCLAIR: I think it would save a lot of
19 time - this is coming from requests that we have had
20 from Mr. Frawley's consultants and all this information
21 has been supplied to him. These questions are coming
22 from the working time cards which have been in his hands
23 and the diesel routing books and things of that kind.
24 If he will just tell us where it is he is lifting the
25 questions from we will say "yes" or "no".

26 MR. FRAWLEY: I have only one more question
27 and it would not have taken as long as your objection.

28 Q. I will put another statement to you, I
29 am submitting that the load of 75 ton cars is allowed
30 to travel on the Woolford sub-division.



1 MR. SMITH: That is right.

2 MR. FRAWLEY: And quite the contrary on
3 the Carberry sub-division?

4 MR. SMITH: That is right, sir.

5 MR. FRAWLEY: Q. Now, I understand, and this
6 may be to Mr. Stenason as well as to you, Mr. Smith,
7 that the position which is taken to the effect that the
8 same figure of \$9,672,85 must be used both for the
9 Carberry sub-division and for the Woolford sub-division
10 as the net property investment associated with a track
11 mile on a size related basis.

12 MR. STENASON: With all of the influences
13 of traffic volume removed from the investment.

14 Q. With what?

15 MR. STENASON: Influences of traffic volume
16 removed from the investment. This irreducible minimum
17 level of investment, you have a mile of track, you have
18 this amount of investment.

19 Q. Now, that assumes, it must assume, must
20 it not, Mr. Stenason, that the Carberry sub-division
21 is in the same condition, no better and no worse than
22 the Woolford sub-division?

23 MR. STENASON: No, not at all. The Carberry
24 sub-division is in better condition because of the volume
25 of traffic which moves over it and the additional invest-
26 ment in the Carberry sub-division as a result of that
27 fact.

28 Q. I am only talking about net property
29 investment, the net property investment associated with
30 a track mile. Now, are you telling me that the net



1 property investment associated with the track mile is
2 the same on that Woolford sub-division in southern
3 Alberta as the Carberry sub-division?

4 MR. STENASON: Are you talking about total
5 net property investment per mile of track on the two
6 sub-divisions?

7 Q. I am talking about total investment,
8 your own words in exhibit 67, gross property investment
9 associated with miles of track.

10 MR. STENASON: But that is not the concept,
11 Mr. Frawley.

12 Q. But those are the words, Mr. Stenason.

13 MR. STENASON: Well, this irreducible minimum
14 level of investment ---

15 Q. I think you have an irreducible minimum
16 of level of investment on that line from Raley to
17 Whiskey Gap and you say you are comparing that to the
18 Carberry sub-division which takes all your modern trains,
19 passenger and freight.

20 MR. STENASON: We are saying if one were to
21 look at the investment per mile of track in the Carberry
22 sub-division that it consists of two parts, the irreducible
23 level of investment in the sub-division plus investment
24 which is there as a result of the volume of traffic
25 moving over the sub-division.

26 Q. Mr. Stenason, what you are saying is
27 those are the main considerations that we have to give
28 to give any meaning to your multiple regression analysis
29 by which you have proceeded to cost grain in western
30 Canada?



1 MR. STENASON: I think that is the correct
2 concept.

3 Q. I have not reason to think that you do
4 not think it is correct, I simply say we must give all
5 this kind of considerations which you have just outlined
6 to give any meaning at all to what you had done in your
7 study of costing grain in western Canada.

8 MR. STENASON: That is the concept.

9 THE CHAIRMAN: We will have a short recess now.

10 ---Short Recess

11 THE CHAIRMAN: Order, please. Mr. Frawley?

12 MR. FRAWLEY: Q. Mr. Stenason, I suggest
13 to you that this, while if it is not ridiculous that it
14 appears to be ridiculous to suggest that the same dollar
15 of investment represents size related costs in every
16 situation irrespective of terrain, traffic, condition of
17 traffic and traffic expectancy. Will you agree with
18 me?

19 MR. STENASON: In so far as the concept is
20 concerned Mr. Frawley, and bearing in mind the way in
21 which random influences excluded as a particular variable
22 in a regression analysis where they are distributed
23 randomly across the observations are absorbed by the
24 constant term in the equation, I would say that this
25 level of irreducible minimum maintenance and investment
26 is correctly interpreted as being the irreducible minimum
27 level of maintenance or investment.

28 Q. Mr. Stenason, you heard Mr. Bentham agree
29 with me that when you are talking about normal maintenance,
30 normal investment, the differences are obvious and



1 considerable between the Woolford sub-division and the
2 Carberry sub-division and the Mountain sub-division?

3 MR. STENASON: Of course, because of traffic ---

4 Q. Just bear with me, I am putting my question
5 to you, you heard me say that. Now, because of the
6 concept of multiple regression and the importance that
7 you have attached to size related cost that you have to
8 put aside this actual difference in expenses and this
9 actual difference in investment and you have to say that
10 putting those things aside and accepting the concept
11 which is here of this cost study then there is nothing
12 ridiculous about suggesting the same dollar of investment;
13 that is what you are saying?

14 MR. STENASON: I would not have accepted the
15 concept if I had not tested it against actual cost and
16 the actual investment on solely related branch lines.

17 Q. Mr. Stenason, are you so enamoured of
18 this concept of yours that you say it has to be accepted
19 regardless of the fact that we can find no justification
20 for it in any of the earlier writings of the classical
21 economists or even the more modern economists than the
22 classical economists.

23 MR. STENASON: You used the word "relatedness",
24 the concept, as I said yesterday, was used in cost cases
25 in the United States.



1 MR. STENASON: I was saying, Mr. Frawley,
2 that the numbers which are here of investment maintenance
3 for the irreducible minimum levels have been tested by
4 looking at the actual expenses and the actual investments
5 light density, very light density lines, which are the
6 lines against which this cost applied.

7 Q. But, Mr. Stenason, you have told me that
8 this figure of \$9,672.85 - that that dollar of investment
9 is placed against all of these lines.

10 MR. STENASON: Yes, it is buried in each of
11 these lines.

12 Q. All right, light density and heavy density?

13 A. Yes.

14 Q. All I suggest to you is that you have
15 to depart from the actual and go to the theoretical
16 before there is any validity to your concepts at all?

17 MR. STENASON: I haven't departed from the
18 actual. I have tried to mention a number of times the
19 tests which were applied to this figure.

20 Q. I don't want to labour it at all because
21 I want to get on with the balance of my cross-examination.
22 But I simply put it to you that if you have to admit
23 to me that you used the same 95 thousand dollars for
24 the investment in the Woolford sub-division, you have
25 used that same 95 thousand dollars in the Carberry
26 sub-division on your main line, taking the full weight
27 on your whole Canadian Pacific Railway system, when
28 you have to accept those vast differences and still say
29 they are under your concept of irreducible minimum
30 maintenance, then I put it to you that if that is ridicu-



1 lous, then the concept is ridiculous.

2 MR. STENASON: I have nothing to add, Mr.
3 Frawley.

4 Q. Have you found that all statisticians
5 that are now practising agree with this concept, and
6 particularly the method of the appliation of this
7 concept?

8 MR. STENASON: I don't know that I have
9 discussed this with all statisticians who are now pract-
10 ising. We certainly discussed it with our own consultants,
11 our own statistical consultants.

12 Q. All right. Now, I will pass to something
13 else. Mr. Stenason, yesterday you said something to
14 Mr. Mauro when you were discussing switching, and you
15 told him that you derived switching costs at a particular
16 location on the basis of individual switching elements?

17 A. That is correct, Mr. Frawley.

18 Q. So, accordingly, in a classification yard
19 the switching time attributed to each car passing through
20 that location was computed by dividing the number of
21 cars handled at the location into the total of switching
22 of engine time spent at the location?

23 A. Mr. Mauro and I had a rather lengthy
24 discussion upon the new switching studies which Canadian
25 Pacific had done at the medium-size terminals, and I
26 explained that we had counted in two categories the
27 through cars handled and the time spent on those through
28 cars and the local cars handled and the time spent by
29 the switching engine in the classification yard on those
30 cars.



1 Q. I would like you to direct yourself to
2 just the movement of through cars.

3 A. Very well, sir.

4 Q. And the answer to my question as I have
5 put it to you is that that is correct?

6 A. That is correct.

7 Q. Does this not rest upon the assumption that
8 every car passing through the location gets the same
9 service?

10 A. Well, let's have a look at the work that
11 is done. The principle work done to through cars in
12 classification is as follows: a change in the caboose;
13 that has to be done on all cars on the train - at least
14 that is something which is borne on all cars on the
15 train. The switching out of all bad order cars. There
16 again we are involved in something that has to be done
17 on the train. Adding traffic to the train, that is cars
18 which come in by one train and go out on another train.
19 Any way freight traffic would fall into that category.
20 Any storage of cars, which often occurs with grain, where
21 the cars may be taken out of the train because of
22 congestion of elevators at the Lakehead. They may be
23 taken out of the train at Kenora and they may be held
24 for two or three days until the congestion is alleviated,
25 and then those cars are put into another train going
26 through. These are all the elements of work that is
27 done to through trains and through cars.

28 Q. Mr. Stenason, the loaded through car
29 receiving classification at Kenora would get the same
30 switching time?



1 A. What we have done --

2 Q. You cannot answer my question?

3 A. Yes, I can, but I would like to answer
4 it in a little more detailed fashion than yes or no.

5 What was done during the four-day study period was to
6 trace the work that was done to these through cars, and
7 a time was developed which reflected all of the work
8 done during those four days to the through cars. That
9 was an average time, but buried behind it is the work
10 that was done, the storage involved, the number of
11 cars put from one train into another, the cabooses that had
12 to be changed, the bad orders that had to be pulled
13 from the train.

14 Q. I put it to you that all of the cars
15 that received classification at Kenora would get the
16 same switching time. Is that or is that not so?

17 A. Yes, all of the through cars at Kenora
18 would get the same classification time.

19 Q. That is all I asked you. I am sure you
20 are endeavouring to be as responsive as you can in this
21 rather difficult cross-examination. Mr. Stenason, isn't
22 it true that at Kenora, on the through loaded cars of
23 grain which pass through the classification yard, most
24 of the work done there is for other traffic?

25 A. No, sir.

26 Q. Most of it is done for the grain?

27 A. Well, the principal traffic moving through
28 Kenora eastward is grain in the first place, therefore
29 whatever work is done in classification bears to a very
30 considerable degree on grain.



1 Q. I wondered what classification through
2 loaded cars of grain would receive at Kenora, and I
3 think you said yesterday that they are pulled out for
4 storage, they are classified for storage?

5 A. They may be.

6 Q. And do you call it classification to have
7 the caboose changed?

8 A. Yes. It is work that has to be done
9 to through trains.

10 Q. And some bad order cars?

11 A. Yes.

12 Q. What you run into everywhere and anywhere
13 on the system?

14 A. Yes, bad orders occur.

15 Q. You are talking about storage. What you
16 are really saying is that the congestion at the Lakehead
17 is so severe that you have to start using passing tracks
18 as far west as Kenora, then you take off some cars
19 at Kenora and you call that storage?

20 A. Yes. Of course, there are only a few
21 places between Winnipeg and Fort William where storage
22 can take place.

23 Q. How many miles is it from Fort William
24 to Kenora?

25 A. About 350 miles.

26 Q. And you wouldn't start storing at Winnipeg
27 because of congestion at the Lakehead?

28 A. There may be some because of the severity
29 of the congestion.

30 Q. Have you in any appreciable number of



1 instances been required to store at Kenora?

2 A. Yes, I am informed by our yard expert.

3 Q. Now, Mr. Stenason, yesterday Mr. Dickson
4 had some cross-examination on this question with you,
5 and you told Mr. Dickson yesterday about the 15 per cent
6 additive which you had arbitrarily incorporated into
7 your revised switching figures?

8 A. It is a unit for switching under winter
9 conditions:

10 Q. And it was done, as you told Mr. Dickson,
11 to account for the higher cost of winter operations?

12 A. Yes.

13 Q. Now, Mr. Stenason, in your original
14 study and in your evidence explaining it you specifically
15 indicated, so as to be conservative, that you were making
16 no such adjustment for winter operations?

17 A. At that time I explain to the commission
18 that all we had was an estimate from your yard man
19 on the extent to which the time per car under winter
20 conditions would be greater than the time per car during
21 the rest of the year. Since that time an analysis has
22 been made of the data, and we have a basis upon which
23 to support the fact that switching under winter conditions
24 is more expensive than during the rest of the year.

25 Q. I suppose it is fair for the us to conclude
26 that the switching costs included in exhibit 132 are
27 less conservative than those which they replaced?

28 A. I would say so.

29 Q. You are aware that our consultants
30 rather suggested that there was exaggeration in the switch-



1 ing costs?

2 A. Your consultants brought to our attention,
3 Mr. Frawley, when in Montreal the fact that we had taken
4 an average classification time for through and local
5 cars at our medium-sized terminals. We had met this
6 problem when we had - at least we had considered this
7 problem when we undertook our switching studies, and
8 we had felt that it would not be possible to make a
9 distribution of work done within classification between
10 through and local cars because of the difficulties in
11 tracing the engine movements. We went back and we did
12 three additional studies which I have described, and
13 we found it possible to so segregate the expense during
14 that time, which is the time spent on local cars and
15 the time spent on through cars.

16 Q. Well, it is an explanation. In other
17 words, Mr. Stenason, I suggest to you that this is
18 what you did: you first substantially reduced the
19 switching time and thus the switching costs as a result
20 of your discussion with our consultants?

21 A. We did additional yard studies, sir, in
22 order to test out a point that we felt might be valid.

23 Q. And then I suggest you proceeded to
24 neutralize that reduction by --

25 A. No, our cost went down for switching.

26 Q. Tell, me this: are not line haul road
27 service operations outside of yards more expensive in
28 the winter than in the summer?

29 A. They would be, but we do not have data
30 showing cars handled by road engines in road yards and



1 time spent.

2 Q. So that you made no allowance for that
3 in your cost study?

4 A. No, because we did not have data to
5 support this. We just did not have the data available.

6 Q. Now, do you think that a period of
7 four consecutive days out of a total of 365 will yield
8 a truly representative picture of switching operations
9 in a yard?

10 A. We selected the four days, Mr. Frawley,
11 on the basis of our yard experts view as to what a
12 normal period during the year would be, and we feel we
13 have done everything possible in a yard study to reflect
14 what the normal operations would be. In addition to
15 that, we have taken the total number of cars through
16 each yard per day, on the average, and compared that with
17 the full cars through the yard in a four-day period,
18 and we found there was little difference in the two
19 statistics.

20 Q. Dr. Edwards has been your consultant
21 in this matter for quite a few number of months?

22 A. Yes.

23 Q. And did you check with Dr. Edwards to
24 find out about the I.C.C. test, and that is that they
25 use a longer time, they use different days of the week,
26 they use different weeks of the year, for sampling
27 yard operations and switching time?

28 A. Perhaps Dr. Edwards can speak to
29 I.C.C. practice. I am told that the I.C.C. has used
30 three-day tests at different times.



1 Q. Dr. Edwards has advised you, apparently.

2 He has advised you of occasions and instances when three-
3 days' time has been used. Is that what he told you?

4 I put it to you, Mr. Stenason, that the standard I.C.C.
5 practice is to use a longer time than you used, different
6 days of the week and different weeks of the year,
7 in sampling yard operations and switching time?

8 A. I am advised by Dr. Edwards that the I.C.C.
9 has published times which are based on a great many
10 three-day studies and which are based on some studies
11 which were longer than three days and which are also
12 based on studies which have been performed by individual
13 railways and submitted to the I.C.C. This is in the
14 treatment of switching time which is basic to rail form
15 A.

16 Q. Mr. Stenason, I have brought Dr. Edwards
17 into it in the form of my question. So your instructions
18 from Dr. Edwards are that there have been occasions when
19 shorter times than you have actually used than four days
20 have been used, and I will certainly accept that if that
21 is what Dr. Edwards told you. I put it to you that my
22 instructions are that the standard I.C.C. practice is
23 to use a longer time than you have used, to use different
24 days of the week and to use different weeks of the year
25 in the sampling that you did.



1
2 MR. STENASON: We don't know what the word
3 "standard" refers to.

4 COMMISSIONER BALCH: Mr. Frawley, may I ask
5 a question: Does it make any difference in the length
6 of switching a car to-day than it does tomorrow --
7 the actual switching?

8 MR. FRAWLEY: My answer is that different
9 days of the week and different times of the year will
10 reflect different conditions of traffic, and that
11 will be a better sampling period.

12 COMMISSIONER BALCH: Well, "different traffic":
13 I don't think there is a yard in the country -- and
14 I am saying this advisedly -- that has the same
15 traffic every month of the year or every season of
16 the year. For instance, you take in the section of the
17 country that is affected by the St. Lawrence Waterway:
18 When the Waterway is open the traffic drops, and
19 when it is closed the traffic picks up. I understand
20 in the case of Kenora -- and I used to know it years
21 ago -- that they are very seasonal there. Is it still
22 the same?

23 MR. STENASON: Yes sir, insofar as grain is
24 concerned -- and this is a very large category of
25 traffic moving between Winnipeg and Fort William --
26 very definite seasonability characteristics.

27
28 --- Adjournment.
29
30



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2 THE CHAIRMAN: Order, please.

3 MR. FRAWLEY: Mr. Commissioner Balch, having
4 asked you to be good enough to defer any further
5 discussion until two o'clock, I would like to put
6 to you an answer according to my instructions.

7 Yard operations are not identical at any
8 given yard. There are variations in the amount of
9 time taken to do a particular switching task. So, when
10 you run four consecutive days, that may not be
11 representative, in our view, of conditions in that
12 yard over the whole year. It is true that the
13 Interstate Commerce Commission does accept three-day
14 studies. My instructions are that they are accepted
15 when no better or fuller or more thorough sampling
16 is able to be obtained.

17 That, sir, is what I am instructed to say
18 by way of reply to the point you raised.

19 COMMISSIONER BALCH: Yes, Mr. Frawley. I
20 understood it was not four consecutive days.

21 MR. STENASON: Yes, it was sir: Wednesday,
22 Thursday, Friday and Saturday.

23 COMMISSIONER BALCH: But if you are coming
24 down to the actual switching, and I understand that
25 is what this is -- and, of course, I am not an
26 economist -- but from the practical side of railroading,
27 the actual switching of a car -- and I think that is
28 what this covers?

29 MR. STENASON: Yes sir, we took the yard
30 operations and broke them up into the various elements



1
2 of switching. So, we would have to talk of moving
3 a car from a classification yard to a particular
4 grain elevator, for example.

5 COMMISSIONER BALCH: That including the
6 spotting of the car, and so forth?

7 MR. STENASON: Yes, sir.

8 COMMISSIONER BALCH: I take it it was the
9 actual switching of a car -- the four mile cut-off
10 and so on?

11 MR. STENASON: Yes, it would be the actual
12 switching time of the car in this transfer operation.

13 COMMISSIONER BALCH: You see, Mr. Frawley,
14 when a car is cut off by a switching, it is supposedly
15 four miles an hour. I can't see the difference between
16 detaching a car today and letting it run at four
17 miles an hour and detaching it a week from now and
18 allowing it to run at four miles an hour.

19 MR. FRAWLEY: Well, Mr. Commissioner, not
20 being an economist or a switchman -- I never switched
21 a car in my life -- I put it to you, sir, that the
22 actual operation you have just indicated -- we cannot
23 assume that is going to take the same number of minutes
24 on the clock on the first of July as it might take
25 on the first of February in the midst of deep snow.
26 That is my first point.

27 COMMISSIONER BALCH: That is right.

28 MR. FRAWLEY: The second point is, Mr. Stenason's
29 study does not stop at giving the number of minutes
30 to do a switching operation. He has added in, on some



1
2 sort of a unit basis, the waiting time. That is what
3 I mean when I say there are variations from yard
4 to yard and from season to season with regard to those
5 matters such as, and as just illustrated, waiting time.
6 As long as you add in these other imponderables on
7 a unit basis, then, again, you might find a similarity
8 of conditions on Monday, Tuesday, Wednesday and
9 Thursday of the week of the 15th of March, but if
10 you take Monday the 15th of March and Tuesday the
11 17th of July and Wednesday the 18th of October, and
12 so on, you might find it different, sir.

13 COMMISSIONER BALCH: Well, they have allowed
14 15 per cent for the winter switching.

15 MR. STENASON: Yes, that is correct.

16 COMMISSIONER BALCH: That is recognized, of
17 course, because it is far different in the winter time
18 than it is in the summer time.

19 MR. FRAWLEY: I would say, sir, that I would
20 commend to your reading the article by Mr. Wright of
21 the Chesapeake and Ohio Railway. I think you will find
22 that rather informative on this whole subject.

23 COMMISSIONER BALCH: Thank you very much.

24 MR. FRAWLEY: Q. Mr. Stenason, I would like
25 to get on to another subject, and that is your net
26 investment in box cars. I put it to you that the
27 average investment in the case of the Canadian Pacific
28 per grain box car is \$5,356.00, and you will find
29 that that comes from working paper No. 2.

30 MR. STENASON: Yes, that is the average



1
2 investment in box cars -- gross investment.

3 Q. I put it to you in Canadian National
4 Railway 3-8 it shows that the same figure for Canadian
5 National is \$3,366.00, and if you would accept that--
6 I can give you that: Exhibit 3-8 of Mr. Bandeen's study.

7 MR. SINCLAIR: If it is wrong, when Mr.
8 Bandeen is on he will change it, I am sure. We will
9 take it subject to Mr. Bandeen's agreeing or disagreeing.
10 Mr. Bandeen is saying he doesn't think it is
11 right.

12 MR. BANDEEN: I think it is 3-7 rather than
13 3-8.

14 MR. FRAWLEY: What am I wrong about -- in
15 my citation?

16 MR. BANDEEN: Yes, and I believe the total
17 is \$4,448.00.

18 MR. FRAWLEY: I direct my questions to you,
19 Mr. Stenason, but I am doing it within the earshot of
20 Mr. Bandeen. Mr. Bandeen told me just now that the
21 Canadian National figure is \$4,448.00, but what he
22 should say -- and I am sure he will say -- is that that
23 is a gross figure, and when you apply ---

24 MR. STENASON: Yes, our figure is a gross
25 figure as well.

26 Q. Your figure is \$8,469.00 gross, \$5,356.00
27 net. Canadian National Figures are \$4,448.00 gross
28 and \$3,366.00 net.

29 MR. STENASON: Those figures don't sound
30 correct to me. Our gross investment is \$3,356.00 in



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2 box cars. This ratio was applied to the net investment.
3 I can understand confusion on this, because our adjustment
4 in which we moved from gross to net is not contained
5 in this work paper.

6 THE CHAIRMAN: What is meant by "net" and
7 "gross"?

8 COMMISSIONER ANSCOMB: You take the
9 depreciation off?

10 MR. STENASON: Yes, sir.

11 COMMISSIONER ANSCOMB: Your depreciation
12 may be entirely different from his because of the
13 length of the life of the car.

14 MR. STENASON: Yes, that could be.

15 MR. FRAWLEY: Q. Tell me if these figures
16 are right: for net investment adjusted to box car
17 level \$50,873,985.00.

18 MR. STENASON: What figure is that -- our
19 fleet investment?

20 Q. Net investment in grain box cars
21 attributed to the study traffic and adjusted to the
22 box car level.

23 THE CHAIRMAN: That is all their cars?

24 MR. FRAWLEY: That is right, sir.

25 COMMISSIONER ANSCOMB: How much was that?

26 MR. FRAWLEY: \$50,873.985.00.

27 Q. I think if you look at work paper 84 you
28 will find the figure we are talking about.

29 MR. STENASON: Yes; \$50,873,985.00, that is
30 the net investment in box cars which was traced to



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2 the study traffic through the treatment.

3 Q. You have confirmed the figure I have
4 given you. In the case of the Canadian National
5 the similar figure is, as appears in N.R. 3-8,
6 \$33,579,100.00. I am hearing no objection from Mr.
7 Bandeen; that is correct.

8 MR. SINCLAIR: We don't know if it is
9 correct or not.

10 MR. FRAWLEY: Well, it is correct. I am
11 reading it, Mr. Sinclair. There is no question about
12 whether it is correct or not. I certainly would
13 not be putting it to the witness. I am taking it
14 from N.R. 3-8 revised.

15 MR. SINCLAIR: All I can say is, there may
16 be all kinds of factors I don't know. We can't expect
17 Mr. Stenason to know all the details of the C.N.R. ---

18 THE CHAIRMAN: "Net" means the original value
19 less the expended portion of service life, I take it?

20 MR. SINCLAIR: And also it has a volume
21 factor involved.

22 THE CHAIRMAN: Oh, yes.

23 MR. FRAWLEY: I am putting to Mr. Stenason
24 merely the two facts, that the investment in the case
25 of the Canadian Pacific is \$50,873,000 and the investment
26 in the case of the Canadian National is \$33,579,000 --
27 the net investment.

28 THE CHAIRMAN: The Canadian Pacific may have
29 more cars.

30 MR. SINCLAIR: The size of cars would have



1
2 an effect.

3 MR. STENASON: Yes, or newer cars, or
4 different depreciation characteristics.

5 MR. FRWWLEY: Q. That is a 40 per cent
6 difference there, Mr. Stenason: Canadian National
7 is 40 per cent lower than Canadian Pacific -- roughly
8 40 per cent. Does that seem to you to be correct?

9 MR. STENASON: Those figures appear reasonable.

10 Q. As far as the number of cars are concerned,
11 let me put these figures in: Canadian National
12 had 132,246 carloads of grain in 1958; Canadian Pacific
13 had 155,180 carloads in 1958, and that percentage
14 is 15 per cent more in your case. My question is
15 perfectly obvious: Will you explain the difference
16 in the investment per car in view of the number of
17 cars you have?

18 MR. STENASON: What I can do is explain the
19 way in which Canadian Pacific investment in freight
20 cars is arrived at. The investment in freight cars
21 was treated on the basis of car days. We counted the
22 active car days of the study traffic. We determined
23 the investment cost on a car day basis by taking the average
24 gross investment in all cars by making an adjustment
25 in that to reflect box cars, deducting from that the
26 depreciation reserves so that we got net depreciation
27 which developed a unit cost per car day, which unit
28 cost per car day was multiplied by the calendar car
29 days of the study traffic. Those were the active
30 car days expended to reflect the idle ratio which falls



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upon all box car traffic.

Q. Well, I am questioning the figure, of course, because there is a burden there in view of the fact the rate base for Canadian Pacific computations are swollen, compared to the Canadian National; that follows from what I have said?

MR. STENASON: There is a difference here, certainly.

Q. When you look at the loss and damage difference and you find that the Canadian National had freight claims of 131,610 allocated to grain, whereas you have \$315,205.00, or, reduced in sort of an approximate way to \$250,000.00 after taking off four overhead additive...?

MR. STENASON: Yes, but that was before making adjustments for volume or the fact we had a larger amount of milling-in-transit.

Page 12240 follows.



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2 Q. Because, superficially, it would look as
3 though the Canadian Pacific had newer and better cars.

4 A. I believe our average investment from
5 the figures I have just heard is higher, average gross
6 investment in cars.

7 Q. That is another reason I want to know why
8 your loss and damage is 200 per cent more than the
9 Canadian National. It does seem to me to be an area,
10 Mr. Stenason, in which there is a difference between you
11 and Canadian National when reduced to the same basis,
12 which I find a little hard to understand.

13 A. Those are the dollars in the accounts,
14 Mr. Frawley, as I explained yesterday. We didn't re-
15 calculate our accounts on anything.

16 Q. Mr. Stenason, you have a reciprocal
17 arrangement with Canadian National in Alberta, the
18 operation of which is that Canadian National hands you
19 cars in the area tributary to Calgary and you take them
20 to export positions at the west coast, and, similarly,
21 Canadian Pacific hands Canadian National cars in the area
22 tributary to Edmonton?

23 A. Yes, that is correct. This is a recip-
24 rocal arrangement in which the revenues involved are
25 balanced out and each road takes advantage of short
26 mileage to Vancouver.

27 Q. You did that despite the fact that 3000
28 cars in 1958 were handed to Canadian National at
29 Vancouver, these 3,000 Canadian Pacific cars were shown
30 as moving from the northern Alberta subdivision of
Canadian Pacific to Vancouver via Calgary.



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2 A. I am informed that is not correct,
3 Mr. Frawley.

4 Q. You did send to our consultants a routing
5 pattern?

6 A. Yes.

7 Q. Can you find anything in the routing
8 pattern which shows that that was not followed in regard
9 to this reciprocal arrangement.

10 A. I am informed, Mr. Frawley, that the
11 reciprocal cars of Canadian Pacific turned over to Can-
12 adian National in 1958 at Edmonton were cars received
13 from the Northern Alberta Railways, which is jointly
14 owned by the two companies, which, of course, would not
15 be contained in the routing pattern at all, plus some
16 cars from the Willingdon subdivision which were treated
17 as turned over to Canadian National at Edmonton.

18 Q. What you mean to say is that the cars
19 which came over the N. A. R., which were Canadian Pacific
20 cars, were turned over to Canadian National?

21 A. That was the large amount of cars
22 involved. Just a minute; I have the figures here. We
23 had of our cars under the reciprocal arrangement approx-
24 imately 2,604 received from the N. A. R., and approx-
25 imately 555 came off the Willingdon subdivision and are
26 reflected in our basic output statistics as moving
27 from Willingdon to Edmonton.

28 Q. The cars other than the 500 went to
29 Vancouver via Calgary?

30 A. Yes, they would have been handled.



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2 Q. I am going to put it to you that what
3 you advised our consultants is that on the Willingdon
4 subdivision, to Vancouver, the routing was west to south
5 Edmonton, then south to Alyth via Red Deer, thence main
6 line.

7 A. Yes, those would be the cars not handled
8 under the reciprocal arrangement.

9 Q. Do you say that the cars off the Willingdon
10 subdivision west to south Edmonton, then south to Alyth
11 via Red Deer, thence the main line -- that is not said
12 at all?

13 A. I am sorry, Mr. Frawley, this was meant
14 to depict the normal routing pattern, and any cars which
15 were subject to special arrangements, such as this
16 reciprocal arrangement, were lifted out of the study.

17 Q. Are you saying that the only reciprocal
18 arrangement you have is what comes off the N. A. R.?

19 A. Substantially 2,604 off the N. A. R. and
20 555 from the Willingdon subdivision, which gives us
21 3,159.

22 Q. That extends from south Edmonton to
23 Lloydminster?

24 A. Yes.

25 Q. Take from Willingdon to Red Deer?

26 A. Yes, sir. That is the only way that I
27 can see that cars can get from that subdivision to Calgary
28 -- without going back to Winnipeg.

29 Q. Now, we will eliminate the cars that you
30 took off the N. A. R. for the purposes of this, and I
put it to you that any other cars that you moved out of



1
2 the Willingdon subdivision or the Red Deer subdivision,
3 or any other subdivisions in that area, did not get the
4 benefit of the reciprocal arrangement, and there was
5 nothing in the information which you sent to our con-
6 sultants which indicated other than that you sent them
7 down to Calgary and thence to Alyth and thence main line.
8 So I want information over and above the N. A. R. cars
9 which you did commit to the Canadian National.

10 A. Yes, we could supply that, Mr. Frawley.

11 Q. Because I put it to you that when you
12 bring a car from northern Alberta and fail to turn it
13 over to Canadian National at Edmonton it means greater
14 mileage, greater car miles and greater train miles,
15 and all meaning greater cost for the movement of grain.

16 A. Well, that is part of the reciprocal
17 arrangement between the two roads in which there is a
18 balancing of the revenue and cars, and, consequently,
19 the costs we have reflected in the study represent the
20 operations performed.

21 Q. It may be a digression, but there is a
22 statute called the C.P.-C.N. Act, and I put it to you
23 that when you were making up a cost study to show the
24 cost of moving grain in western Canada to export
25 positions you would have been advised that the best
26 way to get the grain cars, the best way to handle these
27 cars was to turn them over to Canadian National at
28 Edmonton and save those greater ton miles and train
29 miles and so a greater cost to what you call the study
30 traffic, but you didn't do that.

MR. SINCLAIR: Well, that is an argument my



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2 friend can make if he wants to make it, and the witness
3 said it was handled on the method and on the basis that
4 it was handled. He is speaking from the way the traffic
5 actually moved, and he has made it clear there were 500
6 odd cars off Willingdon which were turned over to
7 Canadian National under the reciprocal arrangement. If
8 my friend wants to argue what the C. P.-C.N. statute says,
9 I will be very glad to meet him on that ground any time.

10 MR. FRAWLEY: Q. Are there any cars shown
11 that you did put into the reciprocal arrangement but
12 which you did show having travelled from the Alyth sub-
13 division and to Red Deer and then to the main line?

14 A. No, sir.

15 Q. The routing arrangements that you gave
16 to our consultants, if they were not wrong they were
17 certainly misleading.

18 A. This was a matter which could easily
19 have been cleared up by a question, and, so far as we
20 were concerned, that was the normal routing analysis for
21 the traffic.

22 Q. That is fine; you just put the burden
23 on these consultants which the provinces of Alberta and
24 Manitoba have retained to do a costing study, you simply
25 put a burden on them to ferret out or to imagine.

26 A. No. This was designed to acquaint
27 all consultants with the nature of the study and to ask
28 questions, and we have had substantial correspondence
29 on all points.

30 Q. The consultants wanted to know the way
you moved the car to Vancouver or the lakehead?



1
2 A. Yes.

3 Q. The consultants having asked for the
4 routing pattern, you sent them the routing pattern which
5 shows that you do send some cars from that subdivision and
6 then to the west coast.

7 A. Well, there are a great many points
8 throughout this study, Mr. Frawley. You and your experts
9 were certainly knowledgeable that there was a reciprocal
10 arrangement which is reflected in the study working
11 papers and other working papers.

12 Q. Mr. Stenason, have you made any study
13 of what has been discussed here quite a number of times,
14 and that is the deficit on branch lines?

15 A. What do you mean by that, Mr. Frawley?
16 A complete analysis of revenues and expenses on branch
17 lines? I have not made such a study.

18 Q. I will tell you what I mean, Mr. Stenason.
19 Have you made any study to find out whether or not the
20 business that you get on the branch line that runs from
21 -- well, take it again from Halkirk to Cordel, which is
22 part of the Lacombe subdivision. Have you made a study
23 to indicate whether or not the total operations of that
24 branch line, all the passenger receipts, all the freight
25 receipts as against all of the passenger revenues and all
26 of the freight revenues, whether or not it comes out
27 at the end of the year to a plus or minus?

28 A. I mentioned earlier this week in response
29 to a question from the Chairman that we had done such a
30 study for the solely related lines in order to determine
the economics of these lines with a just and reasonable



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2 level for grain rates, that is one cent per ton mile, and I
3 advised the Chairman that this study had indicated that
4 of the solely related lines only three or four -- and
5 these were relatively small -- would be economic with the
6 level of grain rates.

7 COMMISSIONER GOBEIL: When that question was
8 asked I was a little surprised -- Mr. Mauro was asking
9 you if you had made a study of the branch lines, and you
10 said you had not, that it was moving at unremunerative
11 rates, and it was on that point that the Chairman asked
12 you if those branch lines were moving at the rate that
13 was passed by the company, if they would be paying or
14 in the red, and you said all but three or four. I
15 was wondering how you could say that if you didn't make
16 a study of these lines.

17 THE WITNESS: There may have been some
18 confusion here. I believe the question had to do with
19 an over-all branch line deficit study, which we had
20 not done, and also the questioning turned upon whether the
21 test which was set up to determine whether a line
22 was solely related or not was a test as to whether the
23 line was in a deficit position, and to that I replied no.
24 We had applied this test to all the branch lines in the
25 prairie and Pacific region in order to test the solely
26 related, and then we went back to the solely related and,
27 using the basic revenue expense which we had, took in
28 this study.

29 THE CHAIRMAN: Taking all the lines together.

30 MR. STENASON: Well, taking all the lines
together there would be no deficit on the solely related



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lines. I have not applied this to all branch lines.

COMMISSIONER GOBEIL: But you have the information for the solely related?

MR. STENASON: Yes, sir.

MR. FRAWLEY: Q. You say you took all the solely related lines and you applied a deficit test, that is all the revenues coming from the traffic originating or terminating on the solely related lines, and you deducted from that revenue all of the expenses attributable to those lines, and you found there was no deficit.

(Page 12250 follows)



1 MR. STENASON: Using the procedure which
2 we described in the precis of evidence, which was to
3 take 50 per cent of the revenues as representing the
4 branch line portion of the revenues, the remainder
5 representing the movement over the main line and relating
6 to the 50 per cent of revenues, the cost of the branch
7 line included the size related cost at the variable
8 cost of all of the traffic moving on the branch line.

9 Q. What concerns me is whether or not this
10 is just a myth or whether there is any substance in the
11 oft-repeated statement that branch line operations are
12 deficit operations. Let us leave the solely related
13 lines and let us go to a line you may have in New
14 Brunswick. I want to know whether or not you are prepared
15 to say, "we have no deficits on any of our branch lines
16 and therefore we have no branch line deficit."?

17 MR. STENASON: As I said earlier, I have not
18 analyzed all the branch lines of Canadian Pacific. I
19 suspect there are individual branch lines on Canadian
20 Pacific which are operated at a deficit. I have not
21 examined all of them. I have concentrated on the branch
22 lines which are of interest in this case, which have to
23 do with the movement of grain, and of course they are
24 quite a significant portion of the total branch lines
25 on Canadian Pacific.

26 Q. If you had a deficit on a branch line in
27 New Brunswick, then, that deficit is expected to be borne
28 and is today borne by your freight revenues?

29 MR. STENASON: Yes, that is correct.

30 Q. And you want grain removed out of that --



1 you want grain to be completely self-sustaining -- and
2 you say it is not now -- and you want grain to bear its
3 full cost?

4 MR. STENASON: Yes, but you will appreciate
5 we have not included any constant cost ---

6 Q. You have not included...?

7 MR. STENASON: Any constant cost.

8 Q. You are saying that grain must bear full
9 cost attributable to grain?

10 MR. STENASON: Yes, that is correct.

11 Q. If we eliminated that, if we are saying
12 --- let us say grain is not paying any part of the
13 branch line deficit in New Brunswick: then, if grain is
14 not, something else -- farm machinery or some other of
15 these rates that are a good many multiples of cost --
16 that kind of traffic must be paying for the deficit on
17 the branch line in New Brunswick?

18 MR. STENASON: Well, it is a rather difficult
19 question to say what may be paying for a particular line.
20 Perhaps the shareholders are paying for a particular loss.

21 Q. In what respect would the shareholders
22 be paying the loss?

23 MR. STENASON: In so far as the earnings level
24 is below the cost of money.

25 Q. Below 6 and a half per cent?

26 MR. STENASON: Below the permissive level,
27 I am told.

28 Q. And the permissive level of earnings is
29 what the Regulatory Board says -- is the permissive level
30 of earnings that this figure is below, that is the figure



1 which the Board of Transport Commissioners says you
2 must not charge more than, or you must not earn more than
3 to have a fair freight structure?

4 MR. SINCLAIR: That is not what the Board of
5 Transport Commissioners says. The Board of Transport
6 Commissioners say that what will be done concerning the
7 raising of that permissive level or the establishment
8 of it is reserved, and that has been put on the record,
9 and my friend knows this very well.

10 MR. FRAWLEY: I know perfectly well ---

11 MR. SINCLAIR: I referred you to the judgments
12 before, and it is all on the record. I read out the
13 judgments and I read out the application, and it is on
14 the record, and I will be glad to refer my friend to that
15 part of the record. The application which he read with
16 great care and which he waved around for months, and there
17 is also the Board's judgment arising out of that.

18 MR. FRAWLEY: I put it to the Commission that
19 when the Board in 1953 rejected the concept that freight
20 rates should be made upon the rate base and rate of
21 return concept that at that time they did so because
22 to have put freight rates on the basis which that would
23 have required would have made an immediate increase
24 in freight rates in Canada of 38 per cent, and the Board
25 said, "we will not attempt to do anything so ridiculous
26 as that", and that is why: it is because of the impossibility
27 of contemplating the kind of freight rate increase that
28 would be required by putting the Canadian Pacific on
29 a rate base and rate of return, that the rate base and
30 rate of return concept was rejected.



1 MR. SINCLAIR: With all due respect to my
2 friend, I will say this, that the difficulties of arriv-
3 ing and securing from the Board a permissive level that
4 is realistic and reasonable is, in part, caused by the
5 fact that it is known to the Board that these grain
6 rates are not bearing their proper share of transportation
7 costs, and this is indicated from the Board's judgments,
8 including in particular the last two judgments, and
9 the special addenda from Commissioner Chase.

10 MR. FRAWLEY: And the addenda of Commissioner
11 Chase was the merest kind of obiter dicta I ever saw
12 in my life.

13 MR. SINCLAIR: I think it was the most cogent
14 remarks made by one of the Commissioners in many years.

15 MR. FRAWLEY: If my friend takes cogency from
16 obiter dicta, let him have it that way.

17 MR. SINCLAIR: There is a case by the name of
18 Guss in the Province of Saskatchewan that I am sure
19 is well known to somebody here that I suggest my friend
20 takes a look at before he makes remarks like that. If
21 we want to argue the law ---

22 MR. FRAWLEY: There will time set aside for
23 that.

24 Q. Mr. Stenason, will you please give your
25 attention to this consideration for the moment: you
26 recall that our consultants asked you for a breakdown
27 of account number 402 "Train Other Expenses".

28 MR. STENASON: Yes, sir.

29 Q. And that was given, of course, before
30 exhibit number 132 was filed and before it was compiled?



1 MR. STENASON: Yes, it was.

2 Q. And this, I think you will find, is
3 the breakdown that you gave to our consultants.

4 MR. SINCLAIR: This is one of the items that
5 was changed, and this does not reflect the change; is
6 that right?

7 MR. FRAWLEY: This was prepared quite irrespect-
8 ive of exhibit 132, that is right, Mr. Sinclair.

9 THE CHAIRMAN: Are you filing that, Mr.
10 Frawley?

11 MR. FRAWLEY: Yes, I am filing that.

12 ---EXHIBIT NO. 137: Document: account No. 402: Train
13 Other Expenses.

14 MR. FRAWLEY: Q. You are accepting this
15 document that I have had marked as exhibit No. 137 as
16 being the breakdown that you supplied to our consultants?

17 MR. STENASON: It looks similar to it. I
18 haven't checked the figures.

19 MR. SINCLAIR: We will accept it on that basis,
20 subject to such check, Mr. Frawley. Unless your typist
21 has made an error, I am sure it is correct.

22 MR. FRAWLEY: Mr. Stenason, you gave another
23 document to our consultants so that they could reconcile
24 the exhibit 137 with the total amount in the expense
25 account which was reported to the Board of Transport
26 Commissioners for 1958?

27 MR. STENASON: What is the document?

28 Q. The document is W. P. - 16.

29 MR. SINCLAIR: Well, again, if you have copied
30 it out, subject to any error, we will certainly take those



---EXHIBIT NO. 138: Document headed: Canadian Pacific
Railway - Grain Door Expenses.

MR. FRAWLEY: Q. You will find that in
exhibit 137 there is a figure for other expenses grain
doors freight of \$842,245.00; is that correct?

MR. STENASON: In the revised exhibit ---

Q. Well, you may go to that if you wish
after I have finished asking you about these exhibits.

MR. STENASON: Well, what is the exhibit?

Q. I am asking you about exhibit No. 137
which I have just handed to you.

MR. STENASON: Oh, I see.

Q. You will see a figure there for other
expenses grain doors freight of \$842,245.00.

MR. STENASON: Yes.

Q. Will you look at the top of that account;
look at the top figure of exhibit No. 137, and you will
find there a total amount for the year 1958 of \$14,592,680.00.

MR. STENASON: Yes.

Q. That is the amount that was reported to
the Dominion Bureau of Statistics and the Board of
Transport Commissioners?

MR. STENASON: Yes.

Q. Now, when you come to look at the account
itself you will find an item of other expenses grain doors
freight of \$842,000.00.

MR. STENASON: Yes.

Q. And whereas you reported to the Dominion
Bureau of Statistics that the total amount for the year
1958 was \$14,592,680.00, actually the figure of



1 \$842,245.00 was not the amount that you spent in 1958,
2 but was a three year average?

3 MR. STENASON: That is correct. It was based
4 on the average for 1956, 1957 and 1958. This was done
5 because of the cycle in the life of grain dōrs which is
6 beyond a one year period.

7 Q. Well, two things occur to me: first of
8 all, as far as the usefulness of this document, the
9 breakdown of account No. 402 to our consultants, is
10 concerned, we were looking at \$842,245.00, or, we were
11 entitled to look at \$842,245.00 as the amount the
12 spent in 1958, whereas that was not the figure at all.
13 It was an average of these figures for -- and I am now
14 looking at exhibit No. 138 -- it was an average of these
15 figures: 1956, \$1,000,347.00; 1957, \$764,580.00; 1958
16 \$761,808.00. What I am suggesting to you, Mr. Stenason,
17 is that you should have had there in this document,
18 which is now exhibit No. 137, instead of \$842,245.00,
19 \$761,808.00.

20 MR. STENASON: You mean in the full reconcilia-
21 tion of the account ---

22 Q. Just attend to what I am putting to you.
23 This is a document reported to the Dominion Bureau of
24 Statistics and requested by our consultants and supplied
25 to them, and it purports to be the total amount expended
26 in 1958.

27 MR. STENASON: Yes.

28 Q. 40,592,680.

29 MR. STENASON: Yes.

30 Q. But, in fact, there is a figure there which



1 is not the exact amount which was spent on other expenses
2 grain doors freight in 1958, because what was spent was
3 761,808, and you reported as having spent 842,245.

4 MR. SINCLAIR: Mr. Nepveu can answer it.
5 We should say Mr. Nepveu is in charge of the report
6 to the Dominion Bureau of Statistics for Canadian Pacific,
7 and maybe he would answer that question.

8 MR. NEPVEU: I think you said that this was
9 a document submitted to the Dominion Bureau of Statistics.
10 This was not a document submitted to the Dominion Bureau
11 of Statistics. This was prepared for the purposes of
12 the study.

13 MR. FRAWLEY: Q. If I said that, it was a mis-
14 understanding. I said you reported to the Dominion
15 Bureau of Statistics 14,592,680 as being the total
16 amount you spent in 1958, and this document was prepared
17 as a result of a request -- the breakdown was prepared
18 as a result of our request.

19 MR. NEPVEU: The grain door expenses, Mr.
20 Stenason calculated on the basis of three years, and
21 I think he has shown on this statement that this was
22 a three year average.

23 Q. Mr. Stenason has used a three year average.

24 MR. NEPVEU: He has calculated grain doors on
25 the basis of a three year average to reflect the life
26 of the grain door which extends more than a period of
27 a year. He has not shown in this statement that the
28 amount of 842,000 was a three year average, but on the
29 other hand he has excluded -- he has deducted the
30 amount from the total reported to the Dominion Bureau of



1 Statistics in 1958. So, in fact, he has understated
2 the other expenses.
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2 Q. Then it is not a true breakdown of the
3 amount reported to D. B. S. of \$14,592,680 which you
4 reported as the amount spent in 1958? It is not
5 correct in two particulars, you are saying.

6 MR. NEPVEU: No, the thing that should have
7 been added there was the word "three-year average" oppos-
8 ite the amount of \$842,000, and the other expenses should
9 have been increased by the difference between \$842,000
10 and \$761,000 for the year 1958, which was not done and
11 resulted in an under-statement.

12 Q. So there is an understatement and an
13 overstatement?

14 MR. NEPVEU: I would say an overstatement,
15 because a three-year average is realistic for costing a
16 grain door.

17 Q. But that is not what you spent in 1958,
18 and this document purports to be the amount spent in 1958.
19 We wanted the component of the amount spent in 1958, and
20 what you gave us was not the amount spent in 1958.

21 MR. NEPVEU: It was not what was spent in 1958.

22 Q. Using \$842,000 rather than \$761,000 makes
23 the rest of the items in account 402 less than they should
24 be and grain doors more than they should be?

25 MR. STENASON: I wouldn't say it makes grain
26 doors more than they should be, because I think it is a
27 realistic way of costing grain doors. I think I have
28 explained once or twice that as far as grain doors are
29 concerned there is a cycle involved which extends
30 beyond one year, so that some of the doors used in 1958
would have been purchased in 1956 and 1957.



1
2 Q. Now, Mr. Stenason, I was going to spare a
3 remark --

4 THE CHAIRMAN: Well, the fact is, Mr. Stena-
5 son, that you have been proceeding on the books of the
6 company at all times.

7 MR. STENASON: Yes, sir.

8 THE CHAIRMAN: And actually this is one
9 instance in which you departed from it because the
10 amount actually expended was \$761,000.

11 MR. STENASON: Yes, to reflect this special
12 consideration of the grain doors.

13 MR. FRAWLEY: Q. Mr. Stenason, I am telling
14 you that when you put in \$842,245, realistic or unrealistic,
15 you were actually putting in a figure which was a wrong
16 figure, because in the year 1958 you spent \$761,808.

17 A. Well, there are a number of places, sir,
18 in which three-year averages are used in the study.

19 Q. Does it make any difference to you?
20 You are asked to tell our consultants what you spent in
21 1958, and you said: "I will not give them that, I will
22 give them a three-year average."

23 A. I believe your consultants had this before
24 they had that statement.

25 MR. SINCLAIR: They had Exhibit 138 before
26 they had Exhibit 137.

27 MR. FRAWLEY: Q. Mr. Mauro said to you:
28 "You say you couldn't assign constant costs to
29 passenger service?"

30 and you said:

"No, I didn't say that. I said they could not be



1
2 "traced directly to passenger service.

3 Q. But you could do that?

4 A. Oh, you can do anything with figures."

5 MR. SINCLAIR: That was "you", Mr. Mauro,
6 could do anything with figures.

7 MR. FRAWLEY: As far as I am concerned, I am
8 obliged to you for saying it, because if anything makes
9 it quite certain that Mr. Mauro was talking about what
10 he or anyone else could do with figures, my friend
11 Mr. Sinclair made it very plain. I am in the hands of
12 the court and the jury on that.

13 MR. SINCLAIR: I am, too, and I can prove that
14 Mr. Mauro can do anything with figures.

15 MR. FRAWLEY: Q. Mr. Stenason, you say that
16 the new figure which you have turned up in Exhibit 132
17 of \$71,700,000 is the total cost of grain?

18 A. There is a rounding matter here, Mr. Frawley.
19 Actually that figure of \$71,700,000 which is quoted
20 as revised -- if you will look at the table which we pro-
21 vided you with attached to our statements, \$71,829,000.

22 MR. SINCLAIR: That is the table which was
23 actually taken right into the record, I think. It didn't
24 become an exhibit. It is page 1193 of volume 67.
25 Mr. Frawley has a copy now.

26 MR. FRAWLEY: Q. Now, you say the figure is
27 \$71,829,000?

28 A. Yes. That was a typographical error.

29 Q. But it was \$70,700,000, and then it
30 now becomes -- because in fairness to you we will not
pay any attention to the \$70,700,000 because that is just



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a typing error, and we go to \$71,829,000. That is \$1,100,000 more.

A. Yes.

Q. Coming back to my question, you say that this figure of \$71,829,000 is the cost of grain?

A. Yes.

Q. And you don't admit that it is anything but the cost of grain, do you?

A. Well, we have used, in my view, the best procedures that could be used in developing the cost of grain, and this is the result.

Q. Yes. Are you broadminded enough, Mr. Stenason, to say that it is a cost of moving grain in western Canada to export positions?

A. Well, the position we have taken from the outset, as your experts appreciate, is that we have tried our best with our consultants and internally to produce the best estimate that we could of the cost of moving grain.

Q. I am wanting nothing more than to find out how adamant you are on the \$71,829,000, and I want to be clear. You will not agree with me that this is just a means of costing grain which you and your experts worked out, using the particular formula which you used?

A. It is the best job we can do in estimating the cost of grain, and we have said to your experts that what we are interested in doing was finding the cost of moving grain, and if anyone had suggestions to make, let them bring them forward so that we can consider them.

Q. You have worked this out, and this is



1
2 your cost of grain?

3 A. Yes.

4 Q. And Messrs. Jones, Smith and Company
5 worked one out and they come out with something else as
6 their cost of grain. Suppose we ask the Stanford
7 Research Corporation to work out a cost of grain for us
8 and they come up with \$80 million or \$60 million, then
9 that would be the Stanford cost of grain, would it not?

10 A. It would be a cost that they developed,
11 yes.

12 Q. And if Mr. Banks worked on the project
13 and came up with another cost of X million dollars, then
14 that would be another cost of grain.

15 THE CHAIRMAN: Our problem is to decide
16 which is the cost.

17 MR. FRAWLEY: Exactly, sir. The purpose
18 of my questioning is transparent. I want to see the
19 extent to which the witness has dug himself in behind
20 his figure of \$71,829,000.

21 Q. You say this is the cost?

22 A. I have said a number of times,
23 Mr. Frawley, that this figure of \$71,829,000 represents
24 the best job that we and our consultants could do in
25 determining the cost of moving grain, and that we have
26 said to your consultants at various meetings if you have
27 suggestions as to procedures, bring them forward.

28 THE CHAIRMAN: I think that this is his honest
29 view as to the cost.

30 MR. STENASON: Yes, sir, it is.

MR. FRAWLEY: Q. And two or three other



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people may come up with an honest view as to what the
cost would be. That would be their cost?

A. Well, a cost depends on what is underneath
the cost, what is behind it.

MR. FRAWLEY: That is all the questions I
have, sir.

(Page 12280 follows)



CROSS-EXAMINATION BY MR. CUMMING:

Q. Mr. Stenason, in the precis of your evidence, on Page 2, in introducing the method of the cost study which has been conducted, you have pointed out generally that in the conduct of the cost study of Canadian Pacific there have been advantages which you did not have in the examination of the cost behaviour of the American Railways, because there is the uniform maintenance and general uniform policies through the railway and that, of course, has eliminated the variations that you might have found on the American side.

MR. STENASON: Yes, sir.

Q. We have had a fair amount of discussion about differences that exist in the results in the cost study conducted by Canadian Pacific compared to that conducted by Canadian National. Would you say that those variations -- and I am just speaking generally now -- would result, in part anyway, from differences between the two railway systems in matters of level of maintenance policy and the financial position, and differences in the financial position of the two roads?

MR. STENASON: Yes, a great many of these differences, particularly differences that you note in the coefficients and regression equations, could result from different behaviour on the part of the expenses in the two roads to output.

Q. The other differences, I suppose, are



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2 differences in volume; they can be traced directly
3 to that?

4 MR. STENASON: Yes, differences in volume
5 and also, in many cases, difference in the way the
6 traffic is handled. For example, the grain traffic
7 to the West Coast, Canadian Pacific has only one
8 port; that is Vancouver. Canadian National traffic
9 moves to Prince Rupert, New Westminster, and Victoria
10 as well -- a small amount.

11 Q. And others of these differences might
12 be the reflection of different maintenance policies
13 and other financial policies and considerations that
14 exist as between the two roads?

15 MR. STENASON: That could be, sir, yes.

16 Q. I have noticed in looking through this
17 book of yours from the Harvard studies that various
18 of my friends have referred to, that through the
19 Appendix B, which deals with the study that was
20 conducted on American roads, you have listed in detail
21 a larger number of the regression equations that
22 were used, and you show the R^2 's that were the measures
23 of the equations that you developed in the various
24 categories of expense.

25 MR. STENASON: Yes.

26 Q. Just dealing with them generally, it
27 appears that there are a very substantial number of
28 them in which the R^2 that is found is of a very high
29 order. I see one on Page 273 that is .9321, and
30 another one on Page 283 that is .911 and so on, and



Stenason cr-ex
(Cumming)

1
2 I won't bother you with more of them. There is
3 another one on Page 289, .9023 -- a large number of
4 them that have an R^2 of that high order.

5 What I wanted to ask you was, how did the
6 correlations and fits of the equations developed in
7 the Canadian Pacific study compare generally with the
8 correlations that you found in this American study?

9 MR. STENASON: Well, it is hard to generalize
10 on specific accounts. As you were taking me through
11 these, I noticed that on track maintenance we had
12 a lower R^2 than was developed in the United States'
13 study. I haven't checked the other in detail. The
14 test here, of course, is the significance of the
15 R^2 in which there is an established statistical method
16 for determining whether or not the R^2 is such as to
17 permit an analyst to see a relationship has been
18 found.

19 Q. What I had in mind, if your correlations
20 are of a lower order than those found in the American
21 study that you participated in, would that have any
22 effect on the results of the study which you conducted
23 for Canadian Pacific.

24
25 MR. STENASON: No sir, not so long as the
26 R^2 's are statistically significant. We achieved a
27 final eleven models as a result of running something
28 like 1,000 different models. This was empirical testing
29 to derive the most statistically significant results of
30 testing with different output variables, and in view



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of that testing I am confident that the results, insofar as they are statistically significant, are appropriate for the purposes used.

Q. You have told some of my friends that you have used costing techniques before, and that the Canadian Pacific has used costing techniques for its rate-making purposes and other studies in years gone by.

MR. STENASON: Yes that is correct.

Q. But that this is the first time that multiple regression has been applied.

MR. STENASON: Yes, although during the last three years -- really, from the latter part of 1956 until 1958, we have been turning more and more to regression analysis and, of course, I have run a number of regressions during this period. This is the first time that extensive analysis on road maintenance has been based on regression analysis.

Q. But you are using this technique in an increasing degree as time goes by?

MR. STENASON: Yes.

Q. Before you were using it to the extent that you are now -- this regression technique in the conduct of your cost studies -- just what was the basis or method of previous cost studies?

MR. STENASON: In Canadian Pacific it is what is known as a modified Rail Form A approach -- or, was. This was where the operating expenses of the company were first distributed on an arbitrary



Stenason cr-ex
(Cumming)

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2 basis between passenger and freight service, and
3 then the total variability of all expenses, using
4 simple least sections -- regression -- was determined
5 mainly through time series.

6 Q. Did you in your previous cost studies
7 conduct switching studies such as we have seen and
8 heard discussed here?

9 MR. STENASON: Not nearly so elaborate or
10 so extensive. From time to time where we had a
11 special category of traffic we have conducted a
12 switching study. A general policy we follow in regard
13 to our ordinary costing is to develop the costs using
14 fairly approximate procedures. If you have a revenue
15 which is obviously much higher than cost, then
16 there is no need to go into a very detailed analysis,
17 but wherever we had a situation in which the proposed
18 revenue was close to the variable cost, then we
19 often went out and conducted special switching studies
20 and determined the output units.

21 Q. What about your treatment of the
22 category of expenses such as the proration average
23 of Traffic and General and Communications Rail? How
24 have they been previously treated in cost studies?

25 MR. STENASON: Previously they had been
26 included in total operating expenses and an overall
27 variability had been arrived at for these total
28 operating expenses.

29 Q. On the same sort of ratio basis as you
30 have used in the present study?



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MR. STENASON: Yes, that is what it essentially comes down to. From your reading of this book, you will probably have noted the criticism we adopted of this type of procedure, because when you are determining variability of overall and operating expenses, you are not dealing with all the various accounts, and one account may be far more important than another.

Q. This is sort of the best you can do? I take it that is the situation -- that there is an element of judgment in an expense category of that sort.

MR. STENASON: With Traffic and General expenses?

Q. Yes?

MR. STENASON: Yes. Of course, these Traffic and General expenses insofar as variability is concerned-- this point has been tested. Dr. Edwards has really done the bulk of the work here, and his procedure was to determine the variability of Traffic and General expenses with total operating expenses in the United States where you have a large number of railroads to work with, and that indicates that the Traffic and General expenses are as variable as total operating expenses, which is the basic assumption that we have used. Furthermore, on Canadian Pacific we have examined the behaviour of Traffic and General expenses as a proportion of total operating expenses over recent years when there were not marked shifts, and we find the Traffic and General bears the same



1 relationship to total operating expenses.

2 Q. So the testing has been on the basis of
3 your actual experience?

4 MR. STENASON: Partly experience with Canadian
5 Pacific and partly with U.S. roads.

6 Q. I would like to turn very briefly to
7 the question of routing patterns, which has also been
8 discussed at some substantial length. As I understand
9 the position, you have, in developing your miles and
10 other output units, relied on what you describe as normal
11 routings?

12 MR. STENASON: Yes, sir.

13 Q. Developed through your field studies?

14 MR. STENASON: Yes, and tested through the
15 car tracing.

16 Q. Could you give us any idea of the differences
17 in mileages that would be involved if the study traffic
18 had been examined from the point of view of determining
19 short line mileage?

20 MR. STENASON: I will have to consult on this
21 one. This has not been tested, Mr. Cumming.

22 Q. I notice from this I.C.C. document, to
23 which Dr. Edwards refers in his evidence, that is, his
24 statement number 5-54 -- I take it you are familiar with
25 this Explanation of Rail Cost Finding Procedures?

26 MR. STENASON: Yes.

27 Q. On page 156 there is a table showing average
28 circuitry by measured commodity products, and they express
29 it in percentages under the heading of Products of
30 Agriculture. The over-all average circuitry found is 13



1 per cent, and in the group of mileage blocks falling
2 between 600 miles and 999 miles, which I understand
3 would straddle the average length of haul for grain...?

4 MR. STENASON: Yes.

5 Q. ...the average circuitry is shown to be
6 12 per cent?

7 MR. STENASON: Yes.

8 Q. Would those percentages be applicable
9 in the prairie and Pacific regions?

10 MR. STENASON: Of Canadian Pacific? I would
11 rather doubt it, although I must say I don't have the
12 working papers behind this tabulation and I haven't
13 tested what the circuitry may be.

14 Q. What I am really leading to is this:
15 is there any case to be made for charging or costing
16 of a major traffic, such as grain moving to export
17 positions, on the short line basis?

18 MR. STENASON: No, in my view there would not
19 be, because what we want in a cost study is the mileage
20 -- the route which was actually followed in the movement
21 of the traffic, because costs which are variable with
22 mileage are only one element of costs, and it may well
23 be it is much more economical to handle a traffic on a
24 route which is possibly a little circuitous than another
25 if, as a result, you can take advantage of heavier trains.

26 Q. Other operating considerations?

27 MR. STENASON: Yes.

28 Q. Are there any places you know of where the
29 question of costing is approached from a short line mileage,
30 whether or not that be the actual movement?



1 MR. STENASON: Not to my knowledge.

2 Q. It is a practise that is not adopted,
3 anyway?

4 MR. STENASON: I will have to check with Dr.
5 Edwards. I am told that costing on short line mileage
6 is used where the actual mileage is not known, and in
7 those cases these factors which are set forth here
8 are used to expand the short line mileage to give you
9 the actual mileage.

10 MR. SINCLAIR: When you say "set forth here"
11 you are referring to the I.C.C. statement.

12 MR. STENASON: Yes, on page 156.

13 MR. CUMMING: Q. That is with a view to
14 arriving at what the actual mileage is?

15 MR. STENASON: Yes.

16 Q. So the traffic in that case would be
17 charged with actual or as close to actual as can be
18 determined?

19 MR. STENASON: Yes, that is correct.

20 Q. But in no case that you know of is the
21 charge ascribed to any traffic movement based solely
22 on the short line distance?

23 MR. STENASON: Not to my knowledge.

24 Q. You mention also during the course of
25 your evidence in connection with this routing pattern
26 that the routing patterns used do not provide for out-
27 of-line hauls?

28 MR. STENASON: That is correct.

29 Q. And to that extent, as I recall your
30 evidence, the output units which are related to distance



1 are understated?

2 MR. STENASON: Yes.

3 Q. Could you give us any idea of the extent
4 to which there is any understatement?

5 MR. STENASON: Yes, I was going to refer back
6 to my test at this point. On grain to Fort William
7 -- this was a total of 38 comparisons, that is to say,
8 the routing analysis was tested against the tracing of
9 the cars from 38 of these particular routings. We found
10 29 were identical; 5 indicated an error of less than
11 35 miles; 4 indicated an error of between 121 and 185
12 miles. Over-all the discrepancy showed an understatement
13 of .9 of 1 per cent on that sample.

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1 On grain to Vancouver, an understatement of
2 .17 of 1 per cent, and on grain to milling points, .66 of one
3 per cent.

4 Q. Throughout it is of a pretty small order?

5 A. Yes, and that would reflect operating
6 matters such as wash-outs and detours.

7 Q. Are these out of line hauls invariably
8 longer than normal routing patterns?

9 A. Yes, I would think they were. I am
10 told yes, they would normally be longer than the normal
11 routing.

12 Q. Can you get situations at all when they
13 would be shorter?

14 A. Well, I can conceive of the situation in
15 our treatment yesterday where we were discussing the
16 grain originating at Weyburn and going up to Pasqua
17 and Moose Jaw and Winnipeg. Presumably if there was
18 a wash-out or something wrong with the line from Weyburn
19 to Pasqua, then the traffic would move a shorter mileage.

20 Q. On a diversion?

21 A. Yes.

22 Q. Are those shorter out of line hauls taken
23 into account in these percentages that you have developed?

24 A. Oh, yes, sir. The test was designed to
25 pick up the shorter as well as the greater. It was a
26 random sample.

27 Q. Speaking of samples, your examination in
28 the studies that you conducted in tracing cars was done
29 on the basis of a sample of some 3700 cars?

30 A. That is correct.



1 Q. If I can refer for a moment to page 8
2 of the precis of Mr. Bandeen's evidence, there is a
3 description of a manner in which the sample was drawn
4 as far as the Canadian National was concerned. It is
5 at the middle of the page, the third paragraph down:

6 "The sample cars were selected from all sub-divisions
7 tributary to the grain terminal proportionally to the
8 number of cars that such sub-divisions contributed
9 to the total cars delivered to the grain terminal.
10 This sample was distributed throughout the months
11 of the year 1958 in proportion to the monthly load-
12 ings on each sub-division".

13 Was your 3700 sample drawn in the same manner
14 as described there?

15 A. It has the same effect. Mr. Bandeen's
16 sample was drawn at the terminal, ours was drawn at the
17 origin points. What we did was to set a target of over-
18 all having a sample of a little better than 29 cars
19 loaded. We then set a target sample or required a
20 number of cars to be sample in each sub-division and
21 then randomized the cars in each sub-division, selected
22 two stations, and conducted a sample based on the random
23 occurrence of cars at those two stations. So the sampling
24 procedure is the same, having in mind the records of
25 the two companies.

26 Q. Does yours vary throughout the year
27 in relation to the monthly loadings?

28 A. Yes. For example, if we had set a sample
29 of 200 cars from the Willingdon sub-division, then we
30 had a random sample in which every 20th or 25th car as it



1 occurred throughout the year was sampled.

2 Q. Does that method of drawing a sample
3 adequately give effect to what I might describe as the
4 peak demand requirements on the railway on the movement
5 of the grain traffic?

6 A. I would say so.

7 Q. Is there any peaking traffic or cost
8 from peaking other than what would be reflected from the
9 manner in which this sample was drawn?

10 A. I would say that there are elements of
11 expense in which peaking are important implications, which
12 has to do with car supply and empty car miles.

13 Q. And which would be fully reflected as
14 a result of the manner in which your sample of the cars
15 studied was drawn?

16 A. Well, I would put it this way, that we
17 have, by using variable cost, not reflected the extent
18 to which the inventoried cars of Canadian Pacific is
19 larger, let's say as a result of having to move grain
20 under peak conditions or the empty car miles of the total
21 company are greater as a result of having to move grain
22 under peaking positions. Now, in so far as car supply is
23 concerned, the peak cars on top of the minor peak in
24 box car traffic and as far as empty miles are concerned,
25 the same situation is true in our loadings of non-grain
26 which tends to be uniform throughout the year in western
27 Canada, except just about the time that spring navigation
28 opens on the lakes.

29 Q. I think you have to some extent anticipated
30 the next question I was going to ask you. I take it that



1 the situation is that the railway has to have a substan-
2 tially larger fleet than it would normally have because
3 of this grain traffic?

4 A. Yes.

5 Q. And these box cars are used elsewhere
6 in the off-grain peak periods?

7 A. To the extent that they can be used else-
8 where in the off-grain peak periods.

9 Q. Would there be any basis in making up
10 this cost study - did you consider charging to the grain
11 traffic the full cost of what I perhaps might say the
12 capital cost of that excess capacity that you have in
13 the box car fleet solely because you do handle the
14 grain traffic?

15 A. No, we did not charge that to grain. What
16 we did charge to grain was the average unutilization or
17 short fall from full utilization of the box car fleet
18 as a whole and applied that to box car traffic. We took
19 an average and applied it.

20 Q. Did you consider doing it in the manner
21 in which I suggested?

22 A. I tested before this. I didn't consider
23 doing it because once you adopt this type of treatment
24 with respect to a particular category of cost, then you are
25 into the area of having to make assumptions, very broad
26 assumptions, in other categories of cost: for example,
27 what would be the switching or what would be something
28 else if grain did not move under these conditions, and
29 as an analytic device we have used the concept of variability
30 which does spread such things as peaking on all traffic



1 which applies to box cars rather than to the traffic
2 which gives rise to that.

3 Q. By charging to grain traffic the
4 unutilized --

5 A. That was a very poor word. Under-utiliza-
6 tion, let's say.

7 Q. --have you not substantially achieved
8 the same effect?

9 A. I didn't understand the question, Mr.
10 Cumming.

11 Q. By doing what you have done, as you have
12 described it to us, have you not, for practical purposes,
13 achieved the same effect as you would have achieved
14 if you had charged to the grain traffic, say, the
15 full capital cost of the excess box car fleet?

16 A. No. You see, the difference is that
17 we have charged the overall idle ratio on box cars to
18 all traffic which used box cars, and we have not attempted
19 to isolate the idle ratio, or at least we have not attempted
20 to isolate the box car capacity which results from the
21 peaking of grain. This has just been an idle factor
22 which has been applied.

23 Q. In connection with the empty car movement,
24 you told us that no empty car movement east of Fort
25 William has been included?

26 A. That is correct.

27 Q. May I ask you why?

28 A. We felt that - I wouldn't say that it is
29 a conservative approach, but we felt that it tended in
30 that direction. On Canadian Pacific we have a cycle of



1 box cars in which we load substantial quantities of
2 box car traffic in western Canada destined to the United
3 States, and the cars are reloaded in the United States
4 and returned to us, usually in eastern Canada. So let's
5 say the leakage from the system is then pulled from
6 the movement in eastern Canada to the west. Then checking
7 the empty mileage from Fort William to the west as the
8 prior empty haul, it is not charged any amount of
9 the subsequent empty haul which would occur, let's say,
10 in this car after it had been unloaded somewhere in the
11 United States, which we have no way of determining.

12 Q. After the peaking demand of the grain
13 traffic is over in the west, do you haul empties?

14 A. Yes.

15 Q. East for use there, perhaps to meet
16 demand or operating requirements in eastern Canada?

17 A. I am told no. The only cars that would
18 move to the east would be automobile cars, but they
19 are not used extensively in grain service. For the most
20 part these cars we store in the west.

21 Q. Automobile cars?

22 A. No, the box cars.

23 Q. Did you consider, instead of attributing
24 to the grain traffic the prior empty movement in the
25 manner in which you have described, charging the grain
26 traffic with the system average of empty movement?

27 A. Yes, we did. We took the empty return
28 movement in the reverse direction of the loaded movement
29 and developed the empty return ratio. Perhaps I might
30 just explain here. In the United States the usual method



1 followed in cost studies is to charge the empty movement
2 as a proportion onto the loaded movement, and the way
3 this proportion is arrived at is to take the number of
4 empty box cars moving in the reverse direction of the
5 loaded box cars, and the proportion is developed from
6 this to reflect the total empty car miles. Now, we
7 tested it taking the prior empty movement by developing
8 this ratio, and we found if we had used this United
9 States method we would have had an empty return movement
10 of approximately 64 per cent rather than the 57 per
11 cent which was developed as a result of the prior empty
12 movement analysis.

13 Q. Do you consider the method you used a
14 more accurate assessment of the empty movement that is
15 directly caused by the traffic that you have been examining?

16 A. Yes, I would, because, largely of seasonal
17 considerations. The only data we had in our records for
18 empty car movement in sub-division is on an annual basis.
19 By a direct tracing of the prior empty movement we had
20 been able to reflect seasonal considerations.

21 Q. Following through the application of this
22 principle of dealing with empty movement, I just want to
23 ask you how far the principle can go. Let me put a hypo-
24 thetical example to you. Supposing, for instance, that
25 a substantial amount of new or additional traffic west
26 bound from Fort William to, say, Kenora were to develop,
27 and you were making a cost study of that new traffic, I
28 take it that new traffic would not be charged with any
29 prior empty movement?

30 A. No, that new traffic would very likely not



1 have empty return movement attached to it.

2 Q. Full box cars of grain coming into Fort
3 William?

4 A. Yes. Using the I.C.C. or American techniques
5 on this there would be a zero return movement in the
6 reverse direction of loaded traffic.

7 Q. Would there really be a zero return if the
8 movement was pulled to Fort William, loaded from Fort
9 William to Kenora and then empty the rest of the way
10 to Vancouver? There is still some empty haul. Who is
11 going to pay for that empty haul?

12 A. I say using the usual techniques, this
13 would have to be developed on a sub-division basis;
14 that is, one would have to develop the empty return
15 movement in the reverse direction to the loaded movement
16 and then trace the sub-division over which the movement
17 occurred.

18 Q. And that would share it around a bit,
19 wouldn't it?

20 A. Yes, that would put the empty return move-
21 ment as an overhead ratio in the loaded movement.

22 Q. Developing these cost studies in other
23 traffic, how would you treat empty movement?

24 A. We use the method I have described.

25 Q. That is this I.C.C. method as distinguished
26 from the allocation of prior empty movement entirely?

27 A. Yes. It would simply not be feasible
28 to trace cars for the normal run of costing, because
29 it is a very large job to trace 3700 cars. It took a
30 very large staff at Canadian Pacific to do this for grain.



1 Q. I want to turn to another subject, if I
2 may, Mr. Stenason; that is the question of locomotive-
3 miles, and the difference in the methods used by Canadian
4 Pacific and Canadian National in computing them. If you
5 direct your attention to page 11 of the summary of evidence
6 of Dr. Edwards where these two differences are set out?

7 A. What is the page?

8 Q. Page 11, under the heading "Locomotive-
9 miles"?

10 A. Yes, I have that.

11 Q. And about the middle of that paragraph
12 this appears:

13 "Canadian National developed locomotive-miles
14 by the addition of train-miles and train switching
15 miles, making no allowance for the movement of
16 light engines nor for helping and doubling. A test
17 was made on Canadian Pacific to establish the unit-
18 miles per locomotive-mile of the study traffic in
19 relation to system unit-miles per locomotive-miles
20 This test showed that there were more unit-miles
21 per diesel locomotive-mile used in moving the
22 study traffic than the average in using all freight
23 traffic."

24 Now, firstly, this test that was conducted
25 and the ratio that was developed - does that ratio reflect
26 these additional factors such as light engine-miles helper-
27 miles and doubling miles? I just want to understand
28 what tests were done.



1 A.. No sir, they do not. The basic statistics
2 of the company count as unit miles. The unit miles
3 in running service exclude the light, helping and
4 doubling.

5 Q. There are really two elements of conserva-
6 tism in the Canadian Pacific method in the calculation
7 of locomotive miles, if I understand this correctly:
8 one is the exclusion of these light engine miles?

9 A. Yes.

10 Q. And the other is the discounting to some
11 extent of the extra number of unit miles per diesel
12 locomotive mile.

13 A. Yes.

14 Q. ...used in the study traffic as compared
15 to the system average; is that right?

16 A. Yes, that is correct. The reason for
17 this is that the basic statistics in Canadian Pacific
18 do not record by individual train run the unit miles
19 in diesel service. They work on the locomotive miles.

20 Q. Can you give us some idea of the extent
21 to which locomotive miles have been understated as a
22 result of these two what you describe as more conservative
23 approaches?

24 A. The one that I have tested, which is the
25 unit mile per locomotive mile ratio, indicates an
26 understatement in the neighbourhood of \$100,000.00.

27 Q. In the over-all result?

28 A. Yes.

29

(Page 12320 follows)

30



1
2 Q. And what about the elimination of
3 switching miles, light engine miles, helper miles and
4 doubling miles?

5 A. I haven't tested that and I don't know
6 how significant it would be.

7 Q. Could any of your operating people give
8 us an idea of what it would be? --

9 MR. SINCLAIR: Try Mr. Smith here.

10 MR. SMITH: It is light running -- light
11 doubling running.

12 MR. CUMMING: I don't know what they are
13 about. They are called train switching miles, light
14 engine miles, helper miles and doubling miles. There
15 are four categories.

16 MR. SINCLAIR: Light.

17 MR. CUMMING: Light engine miles?

18 MR. SINCLAIR: There are three, I think.
19 I have got light engine, helper and doubling miles.

20 MR. CUMMING: Yes, I am sorry; there are just
21 three.

22 MR. SINCLAIR: Let Mr. Smith answer that.

23 MR. CUMMING: Do you know the question
24 and the answer that I want, or do I have to try and
25 phrase it again, Mr. Smith?

26 MR. SMITH: In light running there is some,
27 but not very much. There is some light running. You
28 don't have any doubling with diesel locomotives; and
29 helpers . . . ?

30 MR. CUMMING: Helpers was another category.

MR. SMITH: There is in B. C. a little



1
2 helper mileage, but not very much.

3 MR. CUMMING: Would it be fair to say that,
4 overall, there is not much in this?

5 MR. SMITH: Not very much.

6 MR. CUMMING: Q. We come along now, if I
7 may, Mr. Stenason, to another subject which has been
8 much agitated, and I won't take much of your time with
9 it; but it is the question of switching, and I would ask
10 you to look at the statement numbered 401, which is at-
11 tached to your precis of evidence. It is statement
12 No. 401.

13 A. Exhibit 59?

14 Q. Which is Exhibit 59. That sets out
15 the three groupings of the yards in which the field
16 studies on switching operations in the western and
17 prairie regions were conducted -- large yards, medium
18 yards and small yards.

19 A. Yes.

20 Q. I wonder if you could tell us, having
21 indicated in an answer to, I think it was, Mr. Mauro,
22 that, generally, switching times are longer in the large
23 yards than they are in the small yards -- that is a
24 fair statement, is it, as to what you said to him
25 before

26 A. Yes.

27 Q. ...can you give us some idea what the
28 average minutes per car were in the large yards, the
29 medium yards and the small yards?

30 A. That would be for classifying them, would
it?



1
2 Q. Does it make any difference?

3 A. Oh, yes.

4 Q. Do I have to go beyond classification?

5 Would there be differences in the average minutes per
6 car in the other elements of switching as between small,
7 medium and large yards?

8 A. Yes.

9 Q. As well as in classification?

10 A. Yes; considering the distance, it could
11 be that in one particular area the industrial track could
12 be at a greater distance from a classification yard area
13 than some other yards; of course, this would be normal.

14 Q. I don't want to take the time to invite
15 you to produce a long and complicated table of figures.
16 Maybe this is something that could be made available to
17 the Commission later. You see, I don't know how much
18 I am going to get when I get your answer.

19 A. I will read you our large terminals; and
20 this is classification.

21 Q. You are dealing with classification only?

22 A. Yes; which is a good indication of yard
23 time. Calgary, 4.7 minutes; Fort William, 1.3 ... --
24 no, Fort William, 2.6.

25 Q. The 1.3 was the hump?

26 A. No, the 1.3 was a half classification
27 which was applied to through grain traffic. Since the
28 traffic does not move at Crow's Nest rates beyond Fort
29 William we took half of the classification charged to
30 grain. It moves under the Crow's Nest rates to Fort
William.



1
2 We have Fort William, 2.6; Moose Jaw, 4.4;
3 Winnipeg, 6.0; and Calgary I have already given you.

4 Q. Now, in the medium-sized yards there
5 were just three studied?

6 A. Yes. The average was 1.6. The small
7 (a) yards with yard engines, the average was 2.4.
8 The small (b) yards was 1.6; and the small (c) yards
9 where the work is done by small road engines the average
10 was 1.3.

11 COMMISSIONER BALCH: What would that actually
12 entail in minutes?

13 THE WITNESS: That entailed the volume of
14 work that is done at each of those yards. We tend, as
15 you know, to have a much greater volume of work done
16 at the larger yards because this is where the trains
17 are made up and broken and so on.

18 COMMISSIONER BALCH: And you would allocate
19 that to the time for each car?

20 THE WITNESS: Yes.

21 COMMISSIONER BALCH: Is that your principle?

22 THE WITNESS: Yes.

23 MR. CUMMING: Q. Could I ask you next,
24 then, Mr. Stenason, in connection with the group of
25 medium yards which are set out in statement 401, what
26 sort of variations, if any, you have got between the
27 individual yard studies?

28 A. Yes. We have Kenora with 1.1; Revelstoke
29 with 1.5 minutes; and Swift Current with 2.1 minutes.
30 That lower time for Kenora reflects the greater amount
of through work at Kenora. These are at all times for



1
2 through cars, but at Kenora you would have a lot more
3 changing of cabooses and pulling bad orders than you
4 would have at Swift Current or Revelstoke. At Revelstoke
5 there is a change in tonnages and consequently move traffic
6 has to be taken out of the trains there than others,
7 and at Swift Current you have a large number of branch
8 lines and, therefore, a large number of heavy freight
9 bringing traffic into Swift Current, so you have a lot
more movement from one train to another.

10 Q. Can we have the comparison of the figures
11 on the small yards studied?

12 A. Yes; the small yards: Assiniboia is
13 3.7; Red Deer, 1.7; Souris, 1.9.

14 Q. And on the matter of cuts which comes
15 into consideration in this question of switching, do
16 you recall Mr. Mauro dealing at some length with the
question of cuts?

17 A. Yes.

18 Q. And in the transcript, volume 66 at
19 page 1114, where you were discussing with him

20 A. 1114?

21 Q. I am sorry; 11814 -- about line 16 on you
22 were discussing with Mr. Mauro the Wright formula on the
23 impact of multiple cuts on switching time, and you
24 indicated that your experience had been that the critical
25 point was between approximately one car per cut and
26 two cars per cut, and that you found, if I have under-
27 stood your evidence, there was not much significant
28 variation after the number of cars per cut rose above
29 two?
30



1
2 A. Yes; that was based on special studies
3 which we have had under way in our Winnipeg yard for
4 some time, which have to do with control procedures and
5 measuring the time required for various types of yard
6 work.

7 Q. And then, this matter having been raised,
8 you indicated that you had conducted some test, or
9 some further studies, at Calgary, Souris and one other
10 place, as I recall?

11 A. Saskatoon.

12 Q. Yes, Saskatoon. Dealing just for the
13 moment with the Calgary study, you found that the average
14 car per cut for grain was 3.3 and for non-grain, 2. . . .
15 I had noted it as 2.4, but in the transcript it said
16 2.6.

17 A. Both figures are wrong. I have the
18 work papers. The grain was 3.08 and all loads and
19 empties was 2.53.

20 Q. To get averages of this sort there would
21 be a scatter of observations around the figure which
22 ultimately becomes the average?

23 A. Yes, there would be.

24 Q. And with this non-grain ones there would
25 be a significantly larger number of single cars being
26 cut than there would be in the grain movement?
27 Would that be fair?

28 A. No, I wouldn't say that.

29 Q. I am suggesting that just on the basis
30 of the figures which resulted on these averages?

A. Yes, that sort of thing can come from



1
2 an average, of course; but the operating policy of
3 Canadian Pacific is to maximum traffic on the basis of
4 distance rather than on the basis of type of conditions;
5 so that in Calgary you would have in your cut a number of
6 cars per cut factors reflecting solid cuts on traffic
7 destined to Vancouver and possibly solid cuts on traffic
8 destined to Edmonton.

9 Q. When you say "solid cuts" you mean ...

10 A. I mean two or three cars, or whatever it
11 may be.

12 Q. But would it be fair to take it from
13 what you have said -- this is just so that I understand
14 you properly -- would it be fair to take it from what
15 you have said that there are more -- it seems to me,
16 anyway, to be clear from these average -- more cuts when
17 there is grain involved comprising two or more cars
18 than in the case of non-grain? Is that the result of
19 this study?

20 A. No, I wouldn't say so. I would say that
21 there are problems with averages, of course. You can
22 have single-car or l.c.l. traffic, but you can also have
23 single car or l.c.l. of grain traffic. I would say that
24 the averages reflected the number of cars per cut.

25 Q. Can you tell us from your work papers
26 on this study how many grain cars and how many non-grain
27 cars are involved in this Calgary study?

28 A. I don't have the work papers here for
29 that. We can make it available.

30 Q. Perhaps you would; and since there were
three studies conducted, perhaps we might have the number



1
2 of cars involved in each of these three studies which
3 led to the averages that you gave us the other day.

4 A. Yes.

5 Q. Now, we are going to make some little
6 faster progress because I am coming to pages where there
7 are things stroked out ...

8 MR. SINCLAIR: Maybe we can take five minutes,
9 Mr. Chairman.

10 THE CHAIRMAN: Yes, we can.

11 ---Short recess.

12 THE CHAIRMAN: Order, please.

13 MR. SINCLAIR: Before we start, it has occurred
14 to me that Mr. McGinn has been here on switching studies,
15 and in view of the fact that he is a graduate of the
16 University of Saskatchewan I hope that some questions
17 will follow so that we can get Mr. McGinn's qualifica-
18 tions on the record.

19 THE CHAIRMAN: I know where he comes from --
20 a very good place.

21 MR. CUMMING: We will be very glad to have
22 Mr. McGinn's qualifications on the record, and I have
23 no doubt he will be taking part in the preparation of
24 these additional figures we have requested.

25 Q. Mr. Stenason, would you look at page 13
26 of your precis? You are dealing, near the bottom of
27 the page, with the problem of allocating to the study
28 traffic the proper proportion of the non-revenue freight
29 -- that is, the O. C. S. movement.

30 A. Yes.



1
2 Q. And you point out that this was allocated
3 on the basis of the system-wide proportion of ton miles
4 of non-revenue freight excluding the passenger proportion
5 of total revenue ton miles of freight.

6 A. Yes, that is correct.

7 Q. And you refer to the factor of 3.954 per
8 cent?

9 A. Yes.

10 Q. Would you tell us why you use the system
11 average instead of the relationship, or the percentage
12 relationship, that would be applicable in the prairies
13 and Pacific region.

14 A. I used the system average because cer-
15 tainly some non-revenue freight which is used in western
16 Canada comes from the east. For example, a great deal
17 of our rail comes from Sault Ste. Marie. All of our
18 rail comes from the east, and many other materials that
19 are used in railway construction or in non-revenue freight
20 come from the east. That was really the reason for
21 using the systematic average.

22 Q. Would you have been justified in taking
23 the western region average which, I understand, to be
24 higher?

25 A. Yes, it is higher; there would be some
26 justification here, Mr. Cumming.

27 Q. You pointed out your further explanation,
28 which you gave when you were giving your evidence in
29 volume 18 at page 2502, that the treatment that you have
30 given O. C.S. freight has an element of conservatism
in it?



1
2 A. Yes.

3 Q. I am interested in that. As I understand
4 the rationale of allocating to the study traffic or any
5 traffic, you might be costing a portion of O. C. S. so that
6 it is related to the work done.

7 A. That is correct; and it has to be costed
8 as part of the exparse of the company. The fact that it
9 is not included in the account means that an adjustment
10 has got to be made to basic output unit to so reflect it.

11 Q. It could be done, as I understand the
12 I. C. C. do it, on a gross ton miles basis.

13 A. Yes, it could be done by actually getting
14 estimates as to the cost of moving non-revenue freight;
15 and in one of the tables of railway form A which is used
16 by the I. C. C. there is provision made for taking the
17 average load per tank car of non-revenue freight and the
18 average load per flat car of non-revenue freight.

19 Q. But as you indicated previously, the
20 rationale in making this allocation is that it should
21 be related as closely as possible to work done?

22 A. Yes, that is correct.

23 Q. And in the manner in which you have
24 allocated it, you have adjusted all the relevant output
25 units by the percentages of non-revenue freight to charge
26 the study traffic with what you consider to be its proper
27 proportion of this cost?

28 A. Yes, and the effect of that, Mr. Cumming,
29 was to reflect the cost characteristics of grain in so
30 far as our estimate of the cost characteristics of non-
revenue freight is concerned.



1
2 Q. By doing it in a method which adjusts all
3 the basic output units rather than relating it to simply
4 one of the measures, would it be fair to say that this
5 combined picture of output unit, gross ton miles, revenue
6 freight and all the other elements is really a better and
7 more accurate picture of the work done by the railway in
8 moving the study traffic than simply taking one of those
9 elements.

10 A. Well, I believe the method used by the
11 I. C. C. referred to the estimate made of the actual
12 cost of moving non-revenue freight, and they total these
13 together and non-revenue freight is apportioned between
14 the different categories of freight traffic on the basis
15 of gross ton miles. That method would be preferable to
16 the basis used here.

17 Q. You believe it would be preferable?

18 A. Yes; because it would reflect the actual
19 cost characteristic of moving revenue freight. We don't
20 have the data which reflects the loading characteristics
21 and other basic cost measures for non-revenue freight.

22 Q. But don't you get a better picture of the
23 work done and, therefore, of the cost by looking at what
24 I might describe as a composite picture of output units
25 rather than a single output unit.

26 A. Oh, yes; I would say that if this method
27 is used -- this 3.954 --- then it has to be applied in
28 composite output units.

29 Q. And you told me before that the rationale
30 of charging O. C. S. is to allocate it to work done?

A. Yes.



1
2 Q. And if the composite picture of work
3 done reflected by the combination of all the output
4 units gives you a better, fairer or more accurate
5 picture of work done in this particular study, then,
6 isn't this certainly the proper way of charging it
7 rather than by the I. C. C. method of just relating it
8 to gross ton miles?

9 A. Yes; but, of course, you must appreciate
10 that the I. C. C. developed the unit cost of non-
11 revenue freight on the basis of the loading characteristics
12 of the non-revenue freight, and would apply that unit
13 cost to the share of the total gross ton miles of non-
14 revenue freight which one particular category of traffic
15 bears.

16 Q. All I was referring to, really, is that
17 if this is a better picture and a better reflection of
18 the work done and if the purpose is to attribute the
19 cost of O. C. S. on the basis of work done -- that it
20 might be fairer to say that it isn't really an element
21 of conservatism but that you have achieved a higher
22 degree of accuracy.

23 A. In view of our lack of the basic loading
24 characteristics of our non-revenue freight, I would agree
25 with you.

26 Q. Turning, then, to another subject, and
27 that is the adjustments that were made to take into
28 account expenses not included at the division level,
29 you deal with that in your precis at page 16, and you
30 point out -- if I am summarizing it properly -- that in
order to adjust these superior expenses -- if I may



1
2 describe them that way -- the coefficients which were
3 established on your regression analysis were adjusted
4 by the ratio of the total system expense to total expense
5 incurred at the division level?

6 A. Yes; that is, at all divisions. For
7 example, the number of regressions were based on the line
8 haul division, which is 27. This adjustment was a
9 system expense to the total of all divisions, which would
10 be the 32 -- the 27 line haul, the 4 terminal, plus
11 Canadian Pacific's Electric line -- to make sure this
12 one amount of division expense would be included in the
13 adjustment.

14 Q. And presumably those adjustments would
15 be up-gradings to take into account these other expenses?

16 A. Not in all cases. In the case of
17 "Train Other Expenses" there is a down-grading. The
18 ratio applied was .94.

19 Q. There are two above that. These figures
20 you are referring to now are on Exhibit 65 -- revised
21 statement 407 -- "The Revised Variable Portion of
22 Transportation Expenses," and the number is No. 7.

23 A. Yes. 402, for example, is .949. Now,
24 there was, no doubt, a system credit which was put against
25 that account. Train locomotives water was .999.
26 That, no doubt, reflected a system credit. Then, on
27 the fuel and crew wages, this adjustment factor, line
28 1, is crew wages which reflect an adjustment put through
29 the account at the system level.

30 Q. This is a difficulty I was having with
your figures. I had before me this statement in your



1
2 precis at page 18 that the adjustment to railway expense
3 is not included at the division level, and it seemed to
4 me, in my lay manner, that negative adjustments were
5 inconsistent, with the idea that "How could there be
6 any saving at the superior level?"

7 A. It is as a result of credits that were
8 put through the account at the system level. For
9 example, we have scrap credits for rail. You will never
10 have that rail show in the division expenses, and then
11 there will be a scrap credit for the rail which was
12 removed, which will go into expenses at the system
13 level. There can be credit adjustments for various
14 factors.

15 Q. Could you give us some examples? That
16 is salvage?

17 A. That is salvage. Do you want negative
18 factors?

19 Q. Yes; these were negative factors that I
20 had seen -- certainly on this statement; there may be
21 some on a number of the others.

22 A. Fuel in the inventory. There is
23 inventory adjustment which is contained in the accounts
24 here. When the accountants are finished working with
25 the balance sheet there is a reconciliation of inventory
26 -- the inventory at the beginning of the year, the amount
27 used during the year -- the purchases during the year --
28 and inventory remaining at the end of each year. That
29 gives rise to an adjustment.

30 Some of the positive ones: Yard expense,
for example. We have quite a significant one -- yard



1
2 master and clerks, 1.09. The increase in that reflects
3 police constables which were put into the yard master and
4 clerks account at the system level. They are not
5 treated at the division level since the payroll is a
6 system payroll.

7 Q. Can I take it that wherever there are
8 category adjustment factors these are credits of some
9 sort, like salvage, or something along that general line?

10 A. Yes.

11 Q. Now, unless you have something to add
12 to that

13 A. I would just add inventory adjustments
14 which apply to all material.

15 Q. On the next subject, of the allocation
16 of expenses in the category of traffic in general, where
17 you mention rent and taxes other than income taxes,
18 you have told us that these expense categories, excluding
19 the portion applicable to passenger operations, have
20 been allocated on the basis of the percentage relation-
21 ships as are set out on page 68 and then distributed in
22 the relationship that the variable expense of the study
23 traffic bears to the variable expense of freight on the
24 system?

25 A. No.

26
27
28
29
30 (Page 12340 follows)



1
2 Q. Have I stated that properly?

3 MR. STENASON: This ratio applies to the
4 variable expense of each category of freight traffic.
5 That takes over variable grain to the total freight
6 variable, which arrives at a ratio of 15 per cent,
7 which is the ratio used in allocating constant cost.

8 Q. Then, in the result it breaks down, as
9 appears from Exhibit No. 68 revised -- that is statement
10 No. 410 - ~~there~~ is allocated to the variable cost of
11 study traffic some \$5,560,000 odd?

12 MR. STENASON: Yes.

13 Q. And there will be allocated to the
14 constant portion of the study traffic -- we can get
15 that from statement 411, revised, can we?

16 MR. STENASON: Well, statement 411 revised
17 is Exhibit 69.

18 Q. What is the companion figure of Exhibit
19 69 revised which would relate it to the figure of
20 \$5,811,000 which appears on Line 23 of the former
21 Exhibit 69?

22 MR. STENASON: This is rather difficult --

23 Q. Perhaps I can shorten it up this way:
24 What I am really asking is, how much is charged
25 to the study traffic as a constant cost of account
26 Traffic and General, Communication Rail, and Taxes.

27 MR. STENASON: The short way of doing this
28 would be to take the total constant cost, exclude
29 the constant investment cost, and take approximately
30 17 per cent of that figure. Now, this would be



1
2 total constant cost, \$12,129,000, less the cost
3 of money which is approximately \$2,000,000 -- these
4 are very round figures -- which would give us about
5 \$10,000.000, and we would be dealing with 17 per
6 cent of that.

7 MR. ANSCOMB: \$1,700,000?

8 MR. STENASON: Yes, approximately \$1.7 million.

9 MR. CUMMING: Q. On the figures that I
10 have taken off the previous exhibit - and perhaps you
11 can give me the round percentages as they come from
12 the revised exhibit - the family of accounts called
13 Traffic and General, Communication Rail, and Taxes
14 appear to work out, to have been treated as roughly
15 85 per cent variable with the study traffic and
16 15 per cent constant.

17 MR. STENASON: No, Mr. Cumming. The effect
18 of applying this ratio to the variable expense and
19 to the constant expense is to assume the same degree
20 of variable of traffic in general as all operating
21 expenses, which is about 77 per cent.

22 Q. It would come down to the same percentage,
23 would it, as the General?

24 MR. STENASON: As all operating expense, yes.

25 Q. With that in mind I would like to read
26 to you what appears in Dr. Edwards' precis at Page 25,
27 where he says:

28 "Constant cost are expenses found not to be
29 variable with traffic volume. They include,
30 in large measure, expenses related to



1
2 maintenance and investment in properties in line and
3 yard, as well as supervisory expenses,
4 traffic expenses general expenses
5 property taxes."

6 Those last three are the family of accounts that we
7 have been talking about?

8 MR. STENASON: Yes. This would be the constant
9 portion of that particular family of accounts.

10 Q. Are you not surprised to find that the
11 expense categories, Traffic, General and so on, have
12 such a high degree of variability?

13 MR. STENASON: Well, if you look at the
14 individual accounts you will find, for example,
15 pensions make up almost half of the total Traffic and
16 General; and of course pensions, in the case of the
17 Canadian Pacific is total cost, about \$20,000,000.
18 This is variable with labour costs.

19 Q. Because it is related directly to it?

20 MR. STENASON: Yes. It is related to labour
21 conditions. This would have about the same degree
22 of variability as the total operating expenses. If
23 you look at the other accounts, the Traffic expenses,
24 property taxes and so forth, which we have had a long
25 discussion on, you would expect greater elements of
26 constancy than are contained in this overall 77 per
27 cent. But our tests were - and this is a test that
28 Dr. Edwards has performed -- to relate variation
29 in Traffic and General expense to a large group of
30 U.S. carriers with variation in operating expenses.



1
2 And also we have a number of observations of the
3 behaviour of traffic and General expense as a group,
4 with operating expenses as a group.

5 I mentioned earlier that in the case of
6 Canadian Pacific our Traffic and General expenses have
7 borne about the same relationship to the total operating
8 expenses over the last ten or twelve years - that is
9 the period examined. This cross section study that
10 Dr. Edwards did certainly indicates the same degree
11 of variability. I was interested in the results of
12 these tests....

13 Q. When you say you were interested, and
14 the manner in which you say it, suggests that you were
15 a little surprised at the result, were you not?

16 MR. STENASON: I had never thought it would
17 be that variable.

18 Q. You did not think they would be that
19 variable?

20 MR. STENASON: Tests certainly indicate that
21 they are. Of course, if you consider what we are
22 doing by relating Traffic and General expense to the
23 total operating expenses, they have many features in
24 common with total operating expenses. So far as half
25 the expense category is concerned, that reflects
26 directly the labour charges.

27 Q. Which would have a big impact on its
28 percentage of variability?

29 MR. STENASON: Yes.

30 Q. Now, I am going to leave that and go



1
2 for a moment to this subject of solely related
3 lines; I have a couple of points I want to ask you
4 about at Volume 66, Page 11747, Line 21, in answer
5 to a question from the Chairman. The Chairman asked
6 you:

7 "May I ask Mr. Stenason this question? If
8 the rates on grain were raised to the point
9 that the company wants now, and if that rate
10 were paid, would all branch lines in Western Canada
11 be paying?"

12 You answered:

13 "Yes, all branch lines but about three or
14 four, solely related lines".

15 MR. STENASON: I am sorry, Mr. Cumming, the
16 analysis was based on the solely related lines only.
17 This indicates that we had examined all branch lines.
18 That is not correct. That would apply only to solely
19 related lines.

20 Q. I suppose if the railway got a shade
21 over a cent a ton mile, even those three or four
22 would come into the profitable class?

23 MR. STENASON: They are very close to being
24 profitable now. It is under the presumption that
25 they are used.

26 Q. They are close to being profitable on
27 the assumption you were getting one cent a ton mile
28 on the movement of grain?

29 THE CHAIRMAN: Can you name them?

30 MR. STENASON: Yes.



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Q. Which are they?

MR. SINCLAIR: Two of them, as I recollect, unfortunately are in Manitoba.

MR. CUMMING: Q. Are they in Manitoba?

MR. STENASON: We start with one in Alberta - too bad Mr. Frawley is not here - that is the Cassels Subdivision.

Q. That is one we have not heard so far.

THE CHAIRMAN: How long is that branch line?

MR. STENASON: This requires another working paper - no, we have this one: 23.2 miles.

Q. And the next one?

MR. STENASON: The next one is the McAuley Subdivision.

Q. That is in Manitoba?

MR. STENASON: That is 16.8 miles. The next one is Medstead Subdivision, which is in Northern Saskatchewan, and that is 36 miles. That is the Canadian Pacific portion of the subdivision. The next one is the Snowflake Subdivision, which is in Manitoba, and that is 41.6 miles.

Q. Could you tell us what year each was built in?

MR. STENASON: Yes sir. The first one, Cassels, was constructed in part in 1928.

Q. And Medstead - was it not later?

MR. STENASON: That was in 1931, and it was placed in operation in 1932. The Snowflake Subdivision was built in part in 1899, and another portion was built



1
2 from 1903 to 1909 - it was put in operation at
3 various stages. McAuley was built in 1904.

4 Q. Thank you.

5 MR. CUMMING: Q. Of the total of 3,132½ miles
6 of solely related track, could you tell me roughly
7 how many individual lines are in that figure?

8 MR. STENASON: Yes - I will have to count them.

9 Q. A round figure would be all right, Mr.
10 Stenason.

11 MR. STENASON: Forty-nine subdivisions. For
12 the most part a subdivision is a branch line.

13 Q. You are able to say, Mr. Stenason, that
14 if the revenue to the railway for the movement
15 of grain went to one cent a ton mile all three or four
16 of those solely related lines would be profitable.
17 What would your situation be if the revenue to the
18 railway for the movement of grain through export went
19 to, shall we say, .9 cents a ton mile?

20 MR. STENASON: I would have to recalculate.
21 This working paper is difficult to follow, because --

22 MR. SINCLAIR: Could we do that and file
23 it with the Commission? We could calculate, if it
24 was at .9 cents, how many additional lines there would
25 be, and name them and their dates of construction.

26 THE CHAIRMAN: Yes.

27 MR. CUMMING: That would be all right. Perhaps
28 you would also calculate .75.

29 MR. SINCLAIR: Yes, we can do that, and
30 give the date of construction in the next column.



1
2 MR. CUMMING: Q. Thank you very much.

3 I am very nearly through with you, Mr. Stenason;
4 one or two more points and I will conclude.

5 I was wondering if you would tell the
6 Commission, in dealing with the question generally
7 of the allocation to the study traffic of constant
8 costs, which you have allocated on the basis of
9 percentage of the study traffic variation costs to
10 system operating variation costs, just what are
11 the criteria for determining a proper basis for
12 allocating constant costs?

13 MR. STENASON: Well, the difficulty, of course,
14 with constant cost is that it is a category of
15 cost which cannot be directly traced to some particular
16 work; and consequently, there are a number of
17 procedures for apportionment, some of which have
18 been used by the I.C.C. - two have been used by
19 I.C.C. One is to apportion on the basis of variable
20 expense to total operating variable expense. That
21 is how I.C.C. did it initially; and the second method,
22 and the one used by I.C.C. presently, is to allocate
23 on a basis of tons and ton miles. The purpose
24 of allocating on the basis of ton and ton miles
25 is not to reflect the peculiar characteristic of the
26 study traffic. That is to say, to recognize that
27 constant cost is something that cannot be traced
28 directly to some usable unit or some expense unit,
29 and therefore not to penalize very heavy high-cost
30 traffic such as l.c.l. traffic with a high share of



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the constant, and not to understate the proportion
of the constant which might go on a relatively
low cost category on traffic such as grain with a
very heavy load characteristic.

Q. On this same I.C.C. document that I
referred to before, there appears at Page 23 --

MR. SINCLAIR: Is that a Senate document?

Page 12349 follows.



1
2 MR. CUMMING: The document is entitled:
3 "Explanation of Rail Cost Finding Procedures and
4 Principles relating to the use of Costs". At Page
5 23 there is this last paragraph just before the
6 footnote:

7 "Although any treatment of the constant costs
8 in a cost study is necessarily arbitrary,
9 the prorata ton and ton-mile apportionment
10 appears to be that which is most useful
11 and meaningful as a point of departure to
12 the rate maker."

13 I wonder if you agree with the first part of that,
14 that any treatment of constant costs is necessarily
15 arbitrary?

16 MR. STENASON: That is correct, sir, although
17 one must appreciate that constant costs are
18 costs just like any other type of costs, and that
19 they have to be paid, but the allocation of those
20 constant costs between categories of freight traffic
21 can be done on a number of bases.

22 Q. Thank you, Mr. Stenason. Now, I have
23 two very short points, and I am through. In the
24 revision of Exhibit No. 65, which is statement No.
25 4080 revised, the change that you have made in
26 line 10 from the previous exhibit 66 is to relate the
27 cost of money for investment in equipment and in
28 freight train cars particularly to car days rather
29 than car miles as was done previously?

30 MR. STENASON: Yes, that is correct.



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Q. And this statement, if my understanding of it is correct, is one which shows the avoidable cost of money invested in road and equipment related to the study traffic -- that is the purpose of this?

MR. STENASON: Yes.

Q. And the rationale of relating --

MR. STENASON: Pardon me -- which shows the variable cost of equipment.

Q. I do not want to get into these fine distinctions, but if you want to say "variable" then that is all right with me. The rationale, I take it, was relating the cost of money invested in freight train cars to car days rather than car miles is that car days is, in your view, a better measure of the number of cars required?

MR. STENASON: Yes, sir, because the car days multiplied by 365 ---

Q. ---gives you the number of cars?

MR. STENASON: Yes, it gives us the number of cars.

Q. Then, why would not the same principle, having in mind that we are concerned with the number of cars and, I suppose, the number of locomotives -- why not have diesel yard locomotives, diesel road locomotives, and so on -- those equipment factors -- related to locomotive days? What is the difference, in other words, between car days as a measure of the number of freight cars you need, and not using locomotive days as a measure of the number of



1
2 locomotives?

3 MR. STENASON: If we had any way of cal-
4 culating the number of locomotive days I would prefer
5 it in developing this category.

6 Q. You use this because of lack of data
7 of other sorts?

8 A. No, not entirely. Our treatment of
9 these items of investment varies pretty well, but
10 in the I.C.C. treatment I have never seen miles
11 used as a basis for locomotives. I have used days --
12 I have seen days used as a basis. I suspect the
13 reason for this is that no one keeps locomotive day
14 statistics. It would be a very hard thing to do.
15 You see, you can trace a box car to the traffic moving
16 in it, but when you try to trace a locomotive because
17 of the traffic moving --

18 Q. It is a little more mysterious?

19 MR. STENASON: Yes, because you have a lot
20 of different types of traffic moving behind the
21 locomotive. This is a very good point. The range
22 of variation in miles to time would be of far greater
23 importance in the case of locomotives than in the
24 case of cars. You see, with respect to cars, one
25 of the very large items which soaks up car days
26 is the time that the car is at the shipper's siding
27 being loaded, or at the consignee's siding being
28 unloaded.

29 Q. Such as at the Lakehead Terminal that
30 we heard about?



1
2 MR. STENASON: Yes, that is six or seven
3 days.

4 Q. Perhaps we had better not talk about
5 the Lakehead terminal when Mr. Mauro and Mr. Frawley
6 are not here. Did I interrupt you, Mr. Stenason?

7 MR. STENASON: No, I am finished.

8 Q. Now, in Exhibit 132, the statement of
9 revisions, at Page 4 of 7 under the heading "Equipment
10 Maintenance" you point out that the basis of change
11 was that there was a separation in the accounts of
12 these expenses -- that is, expenses between yard
13 and road -- made on the basis of tractive effort.
14 I wonder if you would explain that to us, Mr. Stenason,
15 and particularly give us a definition of "tractive
16 effort" as it is used there?

17 MR. STENASON: Yes. The output unit which
18 is kept in the company records for the various
19 categories of service in which steam power is used,
20 such as yard, passenger and freight, is called
21 locomotive capacity miles. It is a measure which
22 reflects the capacity of the locomotive, so that
23 you could have two like locomotives with a small
24 capacity being compared with, let us say, two
25 twenty-five per cent capacity locomotives running
26 one mile, which would give you one 50 per cent
27 locomotive capacity mile, and then that would be
28 the equivalent of a 50 per cent capacity locomotive
29 running one mile. It has the effect of reflecting
30 the relationship between repair expenses and the



1
2 nature of the locomotive. That is to say, the
3 bigger the locomotive the bigger the job it is
4 doing and, therefore, the more would be the repair
5 expense.

6 MR. CUMMING: Thank you very much, Mr.
7 Stenason. I am sorry for having taken so long.

8 -----

9 RE EXAMINATION BY MR. SINCLAIR:

10 MR. SINCLAIR: I have only a few questions,
11 but in view of the lateness of the hour, Mr. Chairman,
12 I take it that the technical staff of the
13 Commission, will, of course, be looking at this
14 material closely. I could, maybe, spend quite a
15 bit of time just cleaning up some small points, but
16 I think if they are interested in them they can
17 solve them by just raising them with Mr. Stenason
18 or Mr. Bandeen and these other people who were doing
19 their checks.

20 MR. CUMMING: I think my friend can be
21 fully assured that that is the present intention of
22 the technical staff, and it was for that reason,
23 having in mind that they will be dealing with the
24 greatest possible detail with Mr. Stenason and Mr.
25 Bandeen which, I might without being offensive,
26 describe as the minutae of this, why I did not go into
27 it. The other reason, of course, is a personal
28 one.

29 MR. SINCLAIR: I have a few points, then.
30 There has been some discussion between various



1
2 counsel about switching at Kenora, and you have made
3 it clear in answer to counsel to-day, in any
4 event, that classification switching, and that
5 element of switching, at Kenora does not require
6 further elaboration, but what about local switching,
7 or what is called industrial switching, or what
8 is also called placing cars of grain for mills or
9 storage, or anything of that nature, at Kenora?

10 MR. STENASON: Yes, sir, there is a mill
11 just within the switching limits of Kenora, and
12 there is local switching in connection with the
13 putting of grain into the mill and the pulling of
14 the empty -- the putting of the empty in, and the
15 pulling of the flour out.

16 Q. Perhaps I can lead you here; it will be
17 quicker. Mr. Stenason, you have reference to the
18 Lake of the Woods Mill at Keewatin?

19 MR. STENASON: Yes.

20 Q. The grain comes from Winnipeg through
21 to Kenora and it is taken off the train in
22 classification switching?

23 MR. STENASON: Yes.

24 Q. It goes through the classification yard?

25 A. Yes.

26 Q. It is picked up by the transfer?

27 A. Yes.

28 Q. And it is taken by the transfer to
29 Keewatin?

30 A. Yes, and the car goes --



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Q. Yes, it is spotted at the mill in
Keewatin?

A. Yes.

Q. And then the empty comes back, and
this is all done by the switching engine at Kenora
and that, of course, would take quite a bit more
time than would classification switching on the
average?

A. Yes.

Q. And I think you have made it clear,
have you not, in dealing with the element of
switching -- that is, classification switching --
that you use averages?

A. Yes.

Q. And in dealing with local switching
for grain and grain products you use what?

A. Well, we trace the movement of the
traffic. For example, if the mill was located in
this particular example at the end of an industrial
track then we compute the time per car for
handling the grain or the milling product to and
from the track.

Q. Then, you have developed it specifically
by location and destination?

A. Yes, specifically by location and
prime studies on the work done on the cars handled.

Q. Now, Mr. Stenason, in Volume 66 at
Page 11699 you were discussing grain moving at
Kenora where there was some classification switching,



1
2 and Mr. Mauro said to you at the bottom of Page
3 11699:

4 "Wouldn't it be more economical not to
5 switch all of these cars from one train
6 to another train, and operate this train
7 right through when it has the same tonnage
8 rating?"

9 And your answer -- I should put in parenthesis there,
10 possibly, so that there is no misunderstanding, that
11 you explained later that that same tonnage rating
12 did apply to diesels through from Winnipeg to Fort
13 William, but that there was a reduction at Kenora
14 for steam power which was operated in 1958?

15 A. Yes.

16 Q. Keeping your mind on diesels your answer
17 was:

18 "This is assuming there is enough volume
19 of grain every day of the year to make
20 up a solid train of grain all the way to
21 Fort William."

22 Now, arising out of your answer, Mr. Stenason, is
23 a question of whether grain could be more economically
24 handled on the main line of the Canadian Pacific
25 if it was handled in full tonnage trains rather than
26 by the method it is handled on the Canadian Pacific
27 and as you have costed it. You have made certain
28 studies of this?

29 A. Yes, seven studies have been made by
30 officers of Canadian Pacific as to the most economical



1
2 way of handling grain.

3 Q. Yes, and assuming that grain was moved
4 at full tonnage by a unit locomotive diesel consists,
5 what would be the effect as compared with the way
6 it is now handled, some by solid trains and some
7 by symbol trains, and some by less than full tonnage --
8 what would be the effect?

9 A. We have costed the operation of grain
10 as it moves presently, and as it is moved in two
11 units tonnage trains insafar as grain moving from
12 Swift Current through to Fort William along the
13 main line is concerned. The crew wage cost at the
14 present time as it presently moves is \$1,357,205.00.
15 If we assume that grain is held to make up tonnage
16 trains the crew wage expense would be reduced in
17 1958 by some \$200,000.00, but other expenses would
18 have to increase to a greater extent, particularly
19 the car day costs and the motive costs.

20 THE CHAIRMAN: And the what?

21 A. Motive power -- that is, locomotive
22 costs. The repairs, depreciation and cost of money
23 on freight cars, and motive power, would have
24 increased to the extent that the total cost for
25 crew wages and these items of handling the traffic
26 would have been \$1,499,000.00 as opposed to the
27 \$1,357,000.00.

28 MR. SINCLAIR: Q. Now, just to carry that
29 through, suppose you went to the maximum -- that
30 is, for unit consist diesels -- what would be the



1
2 effect if you went to that and pulled very long
3 trains with four unit consists and held grain to
4 make up four unit consists rather than operating as
5 you do with 2's and 3's, or whatever the situation
6 is, and as it is reflected in your cost study?
7 Say you move it all by four units?

8 A. On this territory that I have been
9 discussing from Swift Current to Fort William, if
10 we held grain until we had tonnage for four unit
11 trains, the crew wage cost would go down by some
12 \$600,000.00, but other costs would increase and
13 more than compensate for that reduction, so that
14 we would have costs of \$2,310,000.00 as opposed to
15 \$1,357,000.00, which is the way in which the traffic
16 was handled in 1958. A very large amount would have
17 been required for extension of yards and sidings
18 and changes to the railway plant. There would also
19 have been very substantial station and yard expense,
20 and a substantial increase in our car costs -- freight
21 car costs.

22 Q. Would they have been any additional
23 roadway expense required to take care of long trains
24 and track sag, and the effect that might have?

25 A. Yes, sir, track sag is a very important
26 consideration in the operation of very long four
27 unit trains. Track sag is a weak spot in the
28 track where there is a downgrade and then an upgrade,
29 and if you have a very long train you have one end
30 going up while the other end is going down.



1
2 Q. The train is going into a "V", but
3 it is not quite a "V"; it is a smooth "V"?

4 A. No, but it creates very serious problems
5 in the operation of trains, and if the four unit
6 trains were operated by the Canadian Pacific along
7 the main line it would be necessary to remove
8 all such track sags.

9 THE CHAIRMAN: How many cars would a four
10 unit train take?

11 MR. SINCLAIR: Q. Take, for instance,
12 between two points.

13 THE CHAIRMAN: Take between Winnipeg and
14 Fort William.

15 MR. SMITH: Winnipeg to Fort William would
16 be 180 loaded cars. That is, with four units. On
17 the Carberry side it would be 368 cars.

18 THE CHAIRMAN: What is the average length
19 now of a train?

20 MR. SMITH: The average length, sir?

21 THE CHAIRMAN: Yes, of a grain train.

22 MR. SMITH: Well, from Winnipeg to Fort
23 William the average loaded train of grain is averaging
24 about 100 cars -- close to 100 cars.

25 COMMISSIONER BALCH: Loaded?

26 MR. SMITH: Yes.

27 THE CHAIRMAN: Q. What would be the average
28 ten years ago?

29 MR. SINCLAIR: This is steam power as against
30 diesel?



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2 MR. SMITH: Between 60 and 65.

3 MR. SINCLAIR: What type of steam power?

4 MR. SMITH: I am talking of G 3 and P 2
5 engines.

6 MR. SINCLAIR: Q. The present trains
7 between Winnipeg and Fort William that are used for
8 handling grain are how many unit consists?

9 MR. SMITH: Two unit consists.

10 MR. SINCLAIR: On the locomotive?

11 MR. SMITH: Yes.

12 MR. SINCLAIR: Mr. Mauro, at Volume 66,
13 Page 11738, asked you:

14 "If you had a run from Carmen to Winnipeg
15 running 52 times a year and if there was
16 only 1000 cars of grain going from Carmen
17 to Winnipeg and you could move the grain
18 trains in ten train loads of 100 cars each
19 you would have assessed against the grain
20 ten trains for that Carmen run. You would
21 have taken it as a percentage of the total
22 number of trains?"

23 And your answer is:

24 "Yes, that is correct".

25 A. Yes, and the answer is incorrect. I
26 did not perhaps fully appreciate the question, but
27 the way in which we would have costed the movement
28 of the grain, and the way we did cost the movement
29 of the grain, is to assume it moved in the average
30 weighted train operating over the subdivision, so



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2 that if the average weight of the train was in
3 terms of 20 cars, as most way trains are, then we
4 would have had a greater number of constructive
5 train miles of the study traffic.

6 Q. Now, at Volume 66, Pages 11781 and 11782,
7 Mr. Mauro is discussing with you why you would not
8 charge a part of the constant cost to passenger
9 service, and at page 11782 Mr. Mauro said to you:

10 "You said you cannot charge an uneconomic
11 service with constant, and the reason is
12 very clear, that you would be out of
13 business. If there was only passenger
14 service and it was operated at a deficit,
15 you couldn't get your dividends because the
16 service is operating at out-of-pocket costs?"

17 And your answer was:

18 "Yes".

19 Mr. Stenason, I might say that I do not understand the
20 question, but would you mind telling the Commission
21 what your assent was intended to convey? Maybe you
22 understood it, but I do not, and I do not know that
23 anybody else reading this would understand it. What
24 does this mean?

25 A. The question - - well, my assent --
26 at least, my position in this matter is that it
27 would be unrealistic to charge any portion of the
28 constant to passenger service.

29 Q. Yes, I said that just before that when
30 I read Mr. Mauro's question. Your answer to that



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2 question was: "Yes". Now, I do not understand
3 the question, and I am asking you to tell the
4 Commission what you agreed to. Would you mind looking
5 at it?

6 THE CHAIRMAN: Is not that an excellent
7 answer if you do not understand the question?

8 THE WITNESS: I thought I did at the time,
9 sir.

10 MR. SINCLAIR: I must say that possibly
11 this question was a likely one to be garbled. It was
12 likely given to Mr. Mauro, and I would not like to
13 leave him in that position.

14 A. Well, I believe the last word in that
15 paragraph I had understood to be "loss". Perhaps
16 it should be "out-of-pocket losses." rather than "costs".

17 Q. Very well, we will go on. You are
18 not sure; is that right? If Mr. Mauro wants to deal
19 with it I suppose he can deal with it with Mr.
20 Bandeen. Now, there has been a number of questions
21 directed to you in connection with pensions. Mr.
22 Mauro and Mr. Cumming - - and particularly Mr. Mauro at
23 pages 11801 and 11802 -- dealt with this, and Mr.
24 Mauro had calculated this pension expense by applying
25 a ratio of 11 point something per cent. Now, I
26 recollect, Mr. Stenason, that you did not agree with
27 his taking an overall percentage and applying it to
28 individual accounts, but leaving that aside he
29 came to a figure of some \$1.9 million and you indicated
30 to the chairman that you wanted to comment on the



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2 matter of pensions further, and I undertook to ask
3 you questions concerning it. I think, possibly,
4 the quickest way to do this would be just to ask
5 you to put on the record what factors concerning
6 the expense chargeable to grain on the Canadian
7 Pacific study you feel would be of assistance to
8 the Commission, and which you wanted to do at that
9 time?

10 A. Yes. The pension expense, or the
11 treatment of the pension expense, is based upon the
12 total pension cost in the books of Canadian Pacific.
13 This cost was first distributed between passenger
14 and freight service on the basis of labour content.
15 It was then treated as overhead, or a traffic in
16 general ratio type of expense, and related to
17 freight service and to grain on the basis of that
18 factor. Included in the account are two elements
19 of expense; first of all --

20 Q. In the pension account?

21 A. Yes, in the pension expense as shown in
22 the accounts.

23 Q. Yes?

24 A. First of all, there is the contribution
25 made by Canadian Pacific to the pension fund in
26 respect of current service for the year, and also
27 contributions which the company has made in respect
28 of service prior to 1937 which was the period since
29 which the pension fund has been contributory in
30 part by the employee and in part by the company.



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2 Q. Prior to 1937 the Canadian Pacific
3 Pension Fund was a non-contributory fund, so that
4 the current expense on Canadian Pacific not only
5 has to deal with cost of pensions currently arising,
6 but also has to reflect, does it not, Mr. Stenason,
7 payment for service which was accrued by employees
8 prior to 1937, because notwithstanding the fact that
9 they might have been young men then the pension
10 cost to the company in this year must reflect the
11 years of service?

12 A. Yes, that is correct.

13 Q. Irrespective of whether those years
14 were contributory or not contributory?

15 A. Yes, and I would like to point out here
16 that the pension plan of Canadian Pacific is based
17 upon average earnings during the last five or ten
18 years of employment. In an inflationary period
19 any short-fall from employee contributions in not
20 making up the full amount of the pension obligation
21 at the end of the service must be contributed by
22 the company. This means, of course, that a
23 management contribution to this pension fund, so
24 long as inflation continues, will continue, and
25 on the basis of an estimate prepared by the Accounting
26 and Finance Department of Canadian Pacific we have
27 an estimate as to our pension expenses right through
28 to the end of the 1960's and to 1970, and it certainly
29 shows no indication of lessening.



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2 COMMISSIONER BALCH: That pension fund --
3 would that include all employees and not just train
4 service employees -- the officials as well?

5 MR. STENASON: All employees, yes. We
6 don't have anything similar to the United States system.

7 COMMISSIONER BALCH: No.

8 MR. SINCLAIR: It covers everybody who enters
9 the service now, or, since 1937, rather, at the time
10 of entry and being under 40 years of age, and it was
11 left open to everybody who was in the service,
12 Commissioner Balch, at that time irrespective of his
13 age to elect to take it, and you will recall, sir, I
14 am sure, that through the co-operation of the organiz-
15 ations a very, very high percentage -- in the very high
16 90's -- of the eligible employees came into the fund.

17 COMMISSIONER BALCH: Much higher than the
18 Canadian National?

19 MR. SINCLAIR: Yes, very much higher, sir.

20 Q. Mr. Mauro asked you concerning the
21 relative costs of C. P. R. pensions in the grain study,
22 and the C. N., and I think you mentioned there was
23 more volume of grain handled by Canadian Pacific, but
24 were there other considerations also that would make the
25 Canadian Pacific costs higher? Would the effect of the
26 plans make any difference?

27 A. Oh, yes, differences in the pension
28 funds would be involved.

29 Q. At page 11810 and 11811, Mr. Mauro,
30 in discussing the selection of output units, asked
whether the use of car miles instead of gross ton miles



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would have resulted in lower costs per unit, and at page 11811 you state, at the top of the page:

"Do you mean this, that had we used car miles in developing the basic unit cost and then applied that to grain?

Q. Yes.

A. I would think that that would result in higher cost of grain.

Q. And if you had used car miles in building up this grain?

A. I am sure I would have had a higher cost because of fuel and crew wages, because grain is a heavier loaded commodity than the average commodity."

Are you correctly reported there?

A. I don't know whether I am correctly reported or not, but I don't think my answer is correct in any case.

Q. Well, would you put the correct answer on the record?

A. If car miles had been used in building up the grain, it would have resulted in a lower rather than a higher cost.

Q. And I think you dealt with whether you would accept such a basis in your answers to Mr. Mauro: Did you or did you not?

A. I believe I did, sir. I mentioned the fact that gross ton miles was a far better costing measure than car miles because it reflected the weight to be moved, and this is the factor which is most



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2 concerned with expense.

3 Q. Mr. Mauro just at that page there, 11821,
4 -- he started it back further, but I will go to this
5 one -- 11821 and 11822: He dealt with the constant
6 factor of 35 miles or a multiple of 35 miles with respect
7 to empty car miles referable to milling in transit traffic,
8 and you will recall he gave you various subdivisions --
9 35, 35, and some others, 70, 70, 70, and he seemed to
10 think this coincidental -- or, some other word such
11 as that, and you said this occurred only in the case of
12 Winnipeg milling in transit traffic and that there is
13 a very real reason for it. I have looked up the trans-
14 cript and I don't think the very real reason was mentioned.
15 Mr. Mauro moved on. Would you please tell the Commission
16 what the reason is to find these milling in transit
17 empty car miles working at 35 or multiples at various
18 subdivisions?

19 A. The empty car miles attributed to the
20 inward movement of grain to Winnipeg mills were developed
21 in total and prorated as between the traffic outward to
22 Fort William and traffic outward to Vancouver. The
23 proration factors were .994, or 99.4 per cent of the
24 traffic was to Fort William, and .006 for Vancouver.
25 When applying these factors to the empty car miles at-
26 tributed to the inward movement, it resulted in a very
27 small mileage for the Vancouver traffic which, when
28 multiplied by the expansion factor -- that was an
29 expansion factor to get from the sample to the universal
30 --- and that expansion factor is 34.960. When multiplied
by the expansion factor which was common to all mileages,



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it resulted in the 35's, 70's, 105's and multiples of 35.

Q. In volume 67, according to my notes in dealing with Mr. Mauro's examination about system communication costs and the amount of that cost that was chargeable to the study traffic, he made reference to an I. C. C. document which Mr. Banks kindly loaned to us, and you said you wanted to take a look at that before answering the I. C. C. procedure. Have you had an opportunity to look at that document or study it?

A. Yes, that document was part of the I. C. C. rules respecting the arbitrary allocation of railway operating expenses between passenger and freight service, and the thing that Mr. Mauro was asking me was whether I would agree with the procedure used by the I. C. C. in this matter, and since the I. C. C. is arbitrary, and attempts to make an over-all allocation on every account between passenger and freight service on the basis of gross ton miles or some other arbitrary measure, I do not agree with that procedure, and this reference that Mr. Mauro had was to the way in which Communications Rail was accounted for -- was split between passenger and freight, and it was split on the basis of other expenses.

Q. Is this part of the over-all system of the I. C. C. whereby they first split out passenger and freight and then do their costing after that, which you felt you had overcome by the concepts and methods that you had developed in these kind of studies which you have presented to this Commission?



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2 A. Yes, sir, we do not follow the I. C. C.
3 treatment of separation between passenger and freight
4 service.

5 Q. You developed units directly attributable
6 to the various types of traffic?

7 A. Yes.

8 Q. Now, Mr. Stenason, there are one or two
9 matters that I do think I should bring to your attention.
10 This has been brought up by a number of my friends during
11 cross-examination, particularly, I think, Mr. Mauro, and
12 I think also Mr. MacKimmie although I would not be sure
13 of that, and that had to do with the fact that in your
14 regression equations in certain instances you had 27,
15 and in other cases you had 31, and I think you said that
16 using the terminal divisions was not appropriate, and
17 you were dealing with certain elements of expense.

18 A. Yes.

19 Q. Because of the fact that the output units
20 were not available?

21 A. That was one reason, but they were very
22 largely expenses in which the nature of the expense in
23 the terminal divisions was quite different from the
24 line haul divisions, as for example station expenses,
25 where the nature of the work done by station employees
26 in the terminal divisions is quite different from that
27 done in the line haul divisions.

28 Q. Say you wanted to get gross ton miles
29 from a terminal division: Could that be secured?

30 A. No, sir; gross ton miles are not reported
in the basic records of the company for terminal



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2 divisions. There is some small item here. Actually,
3 the gross ton miles performed on the train run from the
4 terminal to the yard limit of the terminal division are
5 gross ton miles which in the accounts of the company
6 are kept in the line haul divisions, since the train
7 run is a line haul division. Nonetheless, the gross
8 ton miles reflect work done in the terminal division in
9 so far as the distance from the yard to the terminal
yard limit is concerned.

10 Q. Say that you had taken that in, what
11 would have been the effect? Say you had measured the
12 work which is in the terminal division that was done
13 out to the yard limit: What would the effect be?
14 Have you made any tests?

15 A. Yes, we recalculated the output units
16 for the terminal and line haul divisions around Winnipeg
17 and Fort William terminals, and we found that 1.6 per cent
18 of the gross ton miles were involved, and on the basis
19 of that we felt that a very large amount of work which
20 would be necessary to restate all the gross ton miles
21 and basic output of the company was not worth the very
22 minor change which might result. Furthermore, it is a
23 change which could work in either direction.

24 Q. It has been suggested by some of my friends
25 that rather than doing your analysis by groups of
26 accounts that you should have possibly separated out the
27 accounts and not grouped them in some cases, such as
28 you did: For instance, in Investment in Road Properties,
29 that would break it out to Track, Signals and matters
30 of that kind. You remember this question in principle



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2 being put: Have you considered that, and, if so, for
3 the assistance of anyone who may have this in mind, what
4 would your views be?

5 A. Yes, we have done an extensive amount of
6 work on road property investment, and we have run a
7 great many regression equations in the different compon-
8 ents of total road property investment, and we have been
9 able to secure statistically significant models for the
10 track investment which is about 80 per cent of the total,
11 but we haven't been able to secure statistically signifi-
12 cant models for the other categories of road property --
13 about 20 per cent of the total. We know from the
14 comparison of the models by variability on track invest-
15 ment and variability on road property investment as a
16 whole that the bulk of the variable investment is
17 explained by the track investment and that very largely
18 other items of expense are being absorbed by the constant
19 term in the regression equation. However, the model
20 which we have used, which we used initially and which we
21 still have, is based on total road property investment,
22 and it produces statistically significant results with
23 a very high R^2 value.

24 Q. There have been some questions asked of
25 you by counsel, particularly Mr. Frawley today, about
26 loading grain and the fact that the amount of claims
27 -- things of that nature: Are grain cars sometimes
28 overloaded?

29 A. Yes, sir, we found, as a matter of fact,
30 that the bad order ratio developed through our switching
studies was higher than the system average for all



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2 freight traffic. I don't know whether this reflects
3 an overloading of grain cars or just a heavy tonnage
4 for grain cars.

5 Q. And also the type of the commodity which
6 has at times dust in it?

7 A. Yes, that could have some effect on
8 journals.

9 Q. And this higher bad order ratio --
10 did you give effect to that in your study so that you
11 could reflect that cost over, or did you not bother?

12 A. Well, not in so far as freight car
13 repairs were concerned. We took the system average,
14 but I found in our switching studies we had the bad
15 orders on the four-day period that is reflected in the
16 switching time.

17 Q. Are the cars on Canadian Pacific, based
18 on your analysis, heavier or lighter loaded than on the
19 Canadian National, on the average? Do you remember?

20 A. I believe our cars are a little heavier;
21 I am not certain.

22 Q. There have been suggestions by my
23 friends from the provinces that they were interested in
24 this matter of idle time ratio, and they put a number of
25 questions to you concerning that, as I recollect it.
26 I was wondering if you had made any test concerning this
27 matter to see whether there was any car days associated
28 with the study traffic which would not have been so
29 related as an active car day or as a loaded car day?

30 A. You mean car days at the lakehead?



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2 Q. Or Vancouver?

3 A. Oh, yes. We had in the counting of our
4 cars just counted the time that the car arrived at the
5 terminal in so far as reloads are concerned, and we had
6 counted as an active car day the time of the car until
7 it started moving empty from the terminal. That is
8 because our tracing records only show the time of day
9 that the car arrived and left the terminal, and it was
10 suggested to us that we draw a sub-sample at Fort William
11 and Vancouver to make certain that no idle car days would
12 be included in the active car days as a result of this
13 procedure. We found that the car that had been reloaded
14 and had been active balanced in part the car days idle
15 after they had been made empty. There was a small
16 difference which was completely explained by the half
17 a day which is allowed in I. C. C. studies and which has
18 proven applicable to Canadian Pacific to reflect the time
19 required to take the car from an elevator track to the
20 classificaton yard.

21 Q. Did you find as a result of your sub-
22 sample in your car studies that you had any over-
23 statement?

24 A. No, sir.

25 MR. SINCLAIR: I have no more questions in
26 re-examination.

27 COMMISSIONER ANSCOMB: I have no questions,
28 but I would just like to say to Mr. Stenason that I think
29 you have dealt with a very difficult and complicated prob-
30 lem in a most efficient manner. Your evidence over the
two or three days has been very impressive indeed, and I



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have appreciated it.

MR. STENASON: Thank you very much, sir.

THE CHAIRMAN: Well, thank you, Mr. Stenason.

I endorse what has been said by my colleague,
Mr. Anscomb. You have been very helpful, as has been
the whole crew that you brought with you.

MR. STENASON: Yes, this is a team effort,
sir.

THE CHAIRMAN: We appreciate it.

We will adjourn now until Port Arthur on the
28th at 9.00 a.m. in the court house.

---Adjournment.

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